HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL RA-5A CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KDP-57XBR2	RM-Y185	US	SCC-P69B-A
KDP-57XBR2	RM-Y185	Canadian	SCC-P69B-A
KDP-65XBR2	RM-Y185	US	SCC-P69A-A
KDP-65XBR2	RM-Y185	Canadian	SCC-P69A-A

ORIGINAL MANUAL ISSUE DATE: 7/2001

ALL REVISIONS AND UPDATES TO THE ORIGINAL MANUAL ARE APPENDED TO THE END OF THE PDF FILE.

REVISION DATE	REVISION TYPE	SUBJECT
7/2001	No revisions or updates are applicable at this time.	
11/2001	Supplement - 1	Adjustment Manual Added
1/2002	Correction - 1	Exploded View - Screen Frame Block P/N Corrected
7/2002	Supplement - 2	B Board, Q-Box Assembly P/N Correction; IC001 P/N Correction

DIGITAL HIGH DEFINITION PROJECTION TV

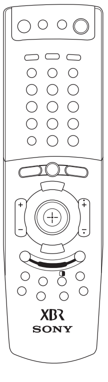
SONY®

9-965-432-04

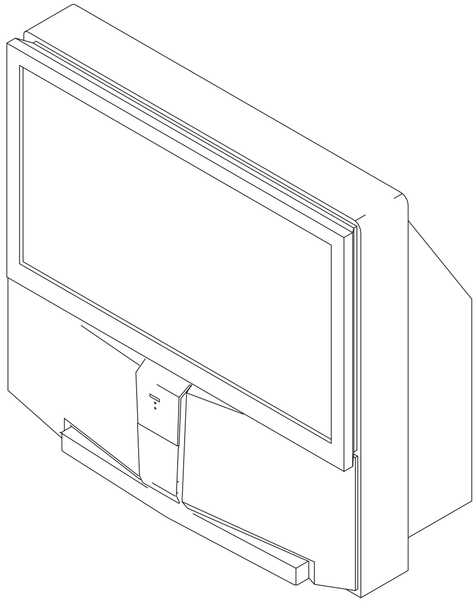
Self Diagnosis Supported model

SERVICE MANUAL RA-5A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KDP-57XBR2	RM-Y185	US	SCC-P69B-A
KDP-57XBR2	RM-Y185	Canadian	SCC-P69B-A
KDP-65XBR2	RM-Y185	US	SCC-P69A-A
KDP-65XBR2	RM-Y185	Canadian	SCC-P69A-A



RM-Y185



DIGITAL HIGH DEFINITION PROJECTION TV

SONY®

SPECIFICATIONS

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.05	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard, ATSC	
Channel Coverage		
DTV	2-69	
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	120V AC, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4 total (1 on front panel)	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	4 (1 on front panel)	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p, (Burst signal), 75 ohms
Component Video Input	2 (Y, P_B, P_R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P_B: 0.7 Vp-p, 75 ohms P_R: 0.7 Vp-p, 75 ohms
Audio (IN)	6 total (1 on front panel)	500 mVrms (100% modulation) Impedance: 47 kilohm
Audio (OUT)	1	More than 408 mVrms at the maximum volume setting (Variable) More than 408 mVrms (Fixed) Impedance (output): 2 kilohms
Subwoofer (Out)	1	More than 408 mVrms at the maximum volume setting Impedance (output): 2 kilohms Cutoff frequency: 100 Hz
SELECT OUT	1 Video 1 Audio	1 Vp-p, 75 ohms unbalanced, sync negative More than 408 mVrms (100% modulation) Impedance (output): 2 kilohms
Digital Audio Optical Output Dolby Digital/PCM	1	Optical Rectangular (1)
CONTROL S (IN/OUT)	1	
i.LINK S200	2	4-pin S200 i.LINK terminal (2)
Supplied Accessories		
Remote Control	RM-Y185	
AA (R6) Batteries	2 supplied for remote control	
Optional Accessories		
AV Cable	VMC-810/820/830 HG	
Audio Cable	RKC-515HG	
i.LINK Cable	VMC-IL4415 (4-pin to 4-pin, 1.5 meters), VMC-IL4435 (4-pin to 4-pin, 3.5 meters)	
Component Video Cable	VMC-10/30 HG	
Rear Speakers	SS-MB115	
Screen Size	57 in measured diagonally (KDP-57XBR2) 65 in measured diagonally (KDP-65XBR2)	
Speakers	Tweeter	100 mm (4") × 2
	Woofer	160 mm (6 3/8") × 2
	Center	100 mm (4") × 2
Speaker Output	Front	20 W × 2
	Center	20 W × 1
	Rear	20 W × 2
Dimensions (W × H × D)	1380 × 1400 × 680 mm (54 3/8 × 55 1/8 × 26 7/8 in) (KDP-57XBR2) 1558 × 1574 × 735 mm (61 3/8 × 62 × 29) (KDP-65XBR2)	
Mass	126 kg (277 lbs) (KDP-57XBR2) 148 kg (326 lbs) (KDP-65XBR2)	
Power Consumption		
In Use	280 W	
In Standby	0.9 W	
In i.LINK Standby	24 W	

Design and specifications are subject to change without notice.

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).
   Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna’s replacement.
8. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

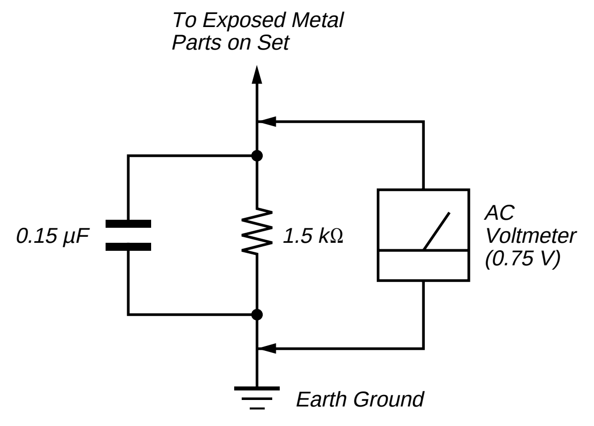


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60 – 100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

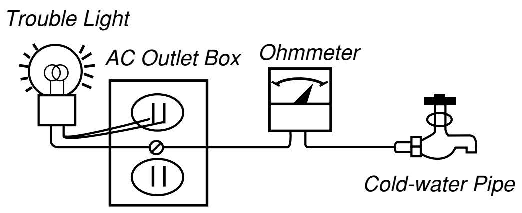


Fig. B. Checking for earth ground.

TABLE OF CONTENTS

Section *Title* *Page*

1. SELF DIAGNOSIS FUNCTION 6

2. DISASSEMBLY

- 2-1. Rear Board Removal 9
- 2-2. Main Bracket Block Removal 9
- 2-3. Service Position 9
- 2-4. Terminal board Removal 9
- 2-5. G Board Removal 10
- 2-6. D Board Removal 10
- 2-7. AD, U, B and A Boards Removal 11
- 2-8. Q-box Assembly Removal 11
- 2-9. K Board Removal 12
- 2-10. Resistor Assembly (Focus Pack) Removal 12
- 2-11. Screen Frame Block Assembly 13
- 2-12. S Board Removal 13
- 2-13. Control Panel Block Removal 14
- 2-14. HD Board Removal 14
- 2-15. Control Door Block Assembly 15
- 2-16. HB Board Removal 15
- 2-17. HA Board Removal 16
- 2-18. Picture Tube Block Removal 16
- 2-19. High-Voltage Cable Removal and Installation ... 17
- 2-20. Picture Tube Removal 17

3. SET-UP ADJUSTMENTS

- 3-1. Screen Voltage Adjustment (Rough Alignment) 18
- 3-2. Screen (G2) Adjustment 18
- 3-3. Deflection Yoke Tilt Adjustment 18
- 3-4. Focus Lens Adjustment 19
- 3-5. Focus VR Adjustment 19
- 3-6. 2-Pole Magnet Adjustment 19
- 3-7. Centering Magnet Adjustment 20
- 3-8. 4-Pole Magnet Adjustment 20
- 3-9. Defocus Adjustment (Blue) 20
- 3-10. Electrical Adjustment by Remote Commander 21
- 3-11. Registration Adjustment 40
  - 3-11-1. Setup for Adjustment 40
  - 3-11-2 Main Deflection Adjustment 40
  - 3-11-3. Operation Method for Projectoe Engine Mode 41
  - 3-11-4. Projector Engine Adjustment (Sub Deflection Adjustment) 42
- 3-12. Auto Registration Offset 44
- 3-13. Auto Registration Error Code List 45

4. CIRCUIT ADJUSTMENTS

- 4-1. 480p Y, PB, PR Gain Adjustment 46
- 4-2. Main Y/C Level Adjustment (for the DRC Path) 46
- 4-3. Main Y/C Level Adjustment (for the VDO Path) 46
- 4-4. SUB Y/C Level Adjustment (for the DRC Path) 47
- 4-5. SUB Y/C Level Adjustment (for the VDO Path) 47
- 4-6. Main Decoder Sub Contrast Adjustment (for Composite and Y/C Inputs) 47
- 4-7. Main Decoder Sub Color and Sub Hue Adjustment (for Composite and Y/C Inputs) 47
- 4-8. Sub Decoder Sub Contrast Adjustment (for Y/C Input) 48
- 4-9. Sub Decoder Sub Color and Sub Hue Adjustment (for Y/C Input) 48
- 4-10. Sub Decoder Sub Contrast Adjustment (for Composite Input) 48
- 4-11. Sub Decoder Sub Color and Sub Hue Adjustment (for Composite Input) 48
- 4-12. Main Decoder PB and PR Offset Adjustment ... 49
- 4-13. Sub Decoder PB and PR Offset Adjustment 49
- 4-14. Blue Offset Adjustment 49
- 4-15. Sub Contrast Adjustment 49
- 4-16. Sub Color and Sub Hue Adjustment 50
- 4-17. RF Sub Contrast Adjustment 50
- 4-18. RF Sub Color and Sub Hue Adjustment 50

5. SAFETY RELATED ADJUSTMENTS

- 5-1. HV Regulation Circuit Check and Adjustment 51
- 5-2. HV Hold Down Circuit Operation Check and Adjustment 51
- 5-3. +B Max Voltage Confirmation 51
- 5-4. +B OVP Confirmation 51

6. FIRMWARE UPGRADES

- 6-1. Overview 52
- 6-2. Transferring the New Firmware from the Memory Stick to the Q-Box 52

7. DIAGRAMS

- 7-1. Block Diagram (1) 53
  - Block Diagram (2) 54
  - Block Diagram (3) 55
  - Block Diagram (4) 56
  - Block Diagram (5) 57
  - Block Diagram (6) 58
  - Block Diagram (7) 59

Section *Title* *Page*

Block Diagram (8) 60
Block Diagram (9) 61
Block Diagram (10) 62
7-2. Frame Schematic Diagram 63
7-3. Circuit Boards Location 64
7-4. Schematic Diagrams and Printed Wiring Boards 64
(1) Schematic Diagram of A (1/3) Board 65
(2) Schematic Diagram of A (2/3) Board 66
(3) Schematic Diagram of A (3/3) Board 67
(4) Schematic Diagram of AD (1/2) Board 68
(5) Schematic Diagram of AD (2/2) Board 69
(6) Schematic Diagram of B (1/7) Board 70
(7) Schematic Diagram of B (2/7) Board 71
(8) Schematic Diagram of B (3/7) Board 72
(9) Schematic Diagram of B (4/7) Board 73
(10) Schematic Diagram of B (5/7) Board 74
(11) Schematic Diagram of B (6/7) Board 75
(12) Schematic Diagram of B (7/7) Board 76
(13) Schematic Diagrams of CB and CG Boards 77
(14) Schematic Diagrams of CR and V Boards 78
(15) Schematic Diagram of D (1/3) Board 79
(16) Schematic Diagram of D (2/3) Board 80
(17) Schematic Diagram of D (3/3) Board 81
(18) Schematic Diagram of G (1/2) Board 82
(19) Schematic Diagram of G (2/2) Board 83
(20) Schematic Diagrams of HA, HB, HC and HD Boards 84

Section *Title* *Page*

(21) Schematic Diagram of K (1/3) Board 85
(22) Schematic Diagram of K (2/3) Board 86
(23) Schematic Diagram of K (3/3) Board 87
(24) Schematic Diagrams of S and U Boards 88
Printed Wiring Boards
- A Board 89
- AD Board 91
- B Board 92
- CB and CG Boards 94
- CR and V Boards 95
- D Board 96
- G Board 97
- HA, HB, HC and HD Boards 99
- K Board 100
- U and S Boards 102

7-5. Waveforms 103
7-6. IC Block Diagrams 105
7-7. Semiconductors 108

8. EXPLODED VIEWS

8-1. Screen and Screen Frame Block 109
8-2. Cabinet Block 110
8-3. Control Panel Block 111
8-4. Main Bracket Block 112
8-5. Picture Tube Block 113

9. ELECTRICAL PARTS LIST 114

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVÉE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SONT CRITIQUES POUR LA SÉCURITÉ. NE LES REMPLACER QUE PAR UNE PIÈCE PORTANT LE NUMÉRO SPECIFIÉ. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SECTION 1

SELF DIAGNOSIS FUNCTION

1. Summary of Self-Diagnosis Function

- This device includes a self-diagnosis function.
- In case of abnormalities, the STANDBY/i. LINK STANDBY indicator automatically blinks. It is possible to predict the abnormality location by the number of blinks. The Instruction Manual describes blinking of the STANDBY/i. LINK STANDBY indicator.
- If the symptom is not reproduced sometimes in case of a malfunction, there is recording of whether a malfunction was generated or not. Operate the remote command to confirm the matter on the screen and to predict the location of the abnormality.

2. Diagnosis Items and Prediction of Malfunction Location

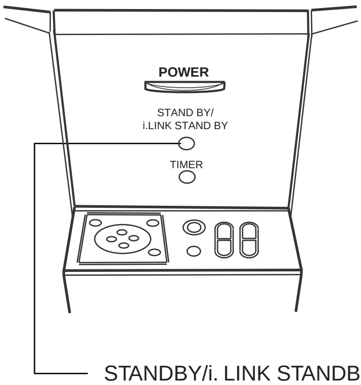
- When a malfunction occurs the STANDBY/i. LINK STANDBY indicator only blinks for one of the following diagnosis items. In case of two or more malfunctions, the item which first occurred blinks. If the malfunctions occurred simultaneously, the item with the lower blink count blinks first.
- The screen display displays the results regarding all the diagnosis items listed below. The display “ 0 ” means that no malfunctions occurred.

Diagnosis Item	No. of times STANDBY / i. STANDBY indicator blinks	Probable Cause Location	Deteced symptoms
Power does not turn on	0	• Power cord is not plugged in. • Fuse is burned out (F6001) (G board)	• Power does not come on. • No power is supplied to the unit. • AC power supply is faulty.
+B overcurrent (OCP) (See Note 1)	2 times	• H. OUT (Q8024) is shorted. (D board) • +B PWM (Q8035, 8038) is shorted. (D board)	• Power does not come on. • Load on power line is shorted.
+B overvoltage (OVP)	3 times	• IC6104 is faulty (G board) • PH6002 is faulty (G board)	• Has entered standby mode.
Vertical deflection stopped	4 times	• ±15 V is not supplied. (D board) • IC8003 is faulty. (D board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White balance failure (Not balanced)	5 times	• Video out (IC3701, 3801, 3901) is faulty. (CR, CG, CB board) • CRT drive (IC3006) is faulty. (A board) • G2 is improperly adjusted. (See Note 2)	• No raster is generated. • CRT cathode current detection reference pulse output is small.
LOW +B OCP/OVP (Overcurrent/over voltage) (See Note 3)	6 times	• LOW +B line is overloaded. (A, B boards) • LOW +B line is shorted. (A, B boards)	• No picture
Horizontal deflection stopped	7 times	• Q8035, 8038 is shorted. (D board)	

Note1: If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The sympton that is diagnosed first by the microcontroller is displayed on screen.
Note 2: Refer to Screen (G2) Adjustment in Section 3-1, 2 of this manual.
Note 3: If STANDBY/i. LINK STANDBY indicator blinks six (6) times, unplug the unit and wait 10 minutes before performing the adjustment.

3. Blinking count display of STANDBY / i. LINK STANDBY indicator

< FRONT PANEL >



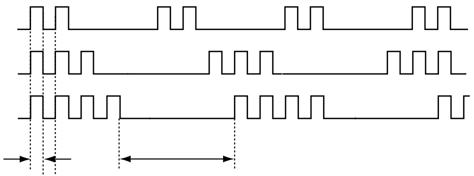
STANDBY/i. LINK STANDBY indicator

* One blink is not used for self-diagnosis.

•EXAMPLE

<Diagnosis Items> <Number of Blinks>

• +B overcurrent	2 times
• +B overvoltage	3 times
• Vertical deflection stop	4 times



Lamp ON : 0.3 seconds
Lamp OFF : 0.3 seconds
Lamp OFF : 3.0 seconds

Release of STANDBY/i. LINK STANDBY indicator blinking.

- The STANDBY/i. LINK STANDBY indicator blinking display is released by turning OFF the power switch on the TV main unit or removing the plug from the power.

4. Self-diagnosis screen displays

- In cases of malfunctions where it is not possible to determine the symptom such as when the power goes off occasionally or when the screen disappears occasionally, there is a screen display on whether the malfunction occurred or not in the past (and whether the detection circuit operated or not) in order to allow confirmation.

<Screen Display Method>

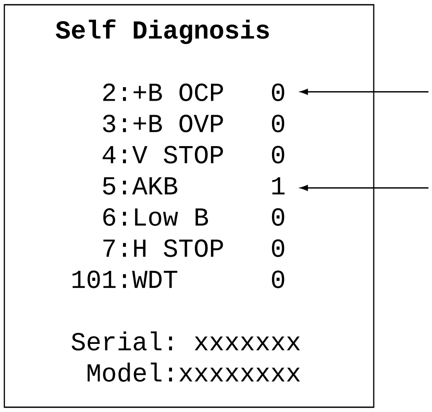
- Quickly press the remote command button in the following order from the standby state.

DISPLAY ➡ Channel 5 ➡ VOL – ➡ POWER

⇧

Be aware that this differs from the method of entering the service mode (volume +).

Self-Diagnosis screen display



```
  Self Diagnosis

     2:+B OCP   0
     3:+B OVP   0
     4:V STOP   0
     5:AKB      1
     6:Low B    0
     7:H STOP   0
   101:WDT      0

   Serial: xxxxxxx
    Model:xxxxxxxx
```

Numeral “0” means that no fault has been detected.

Numeral “1” means a fault was detected one time only.

5. Self-Diagnosis Screen Display

- The results display is not automatically cleared. In case of repairs and after repairs, check the self-diagnosis screen and be sure to return the results display to “ 0 ”.
- If the results display is not returned to “ 0 ” it will not be possible to judge a new malfunction after completing repairs.

<Method of Clearing Results Display>

1. Power off (Set to the standby mode)
2. DISPLAY ➡ Channel 5 ➡ VOL + ➡ POWER (Service Mode)
3. Channel 8 ➡ ENTER (Test reset = Factory preset condition)

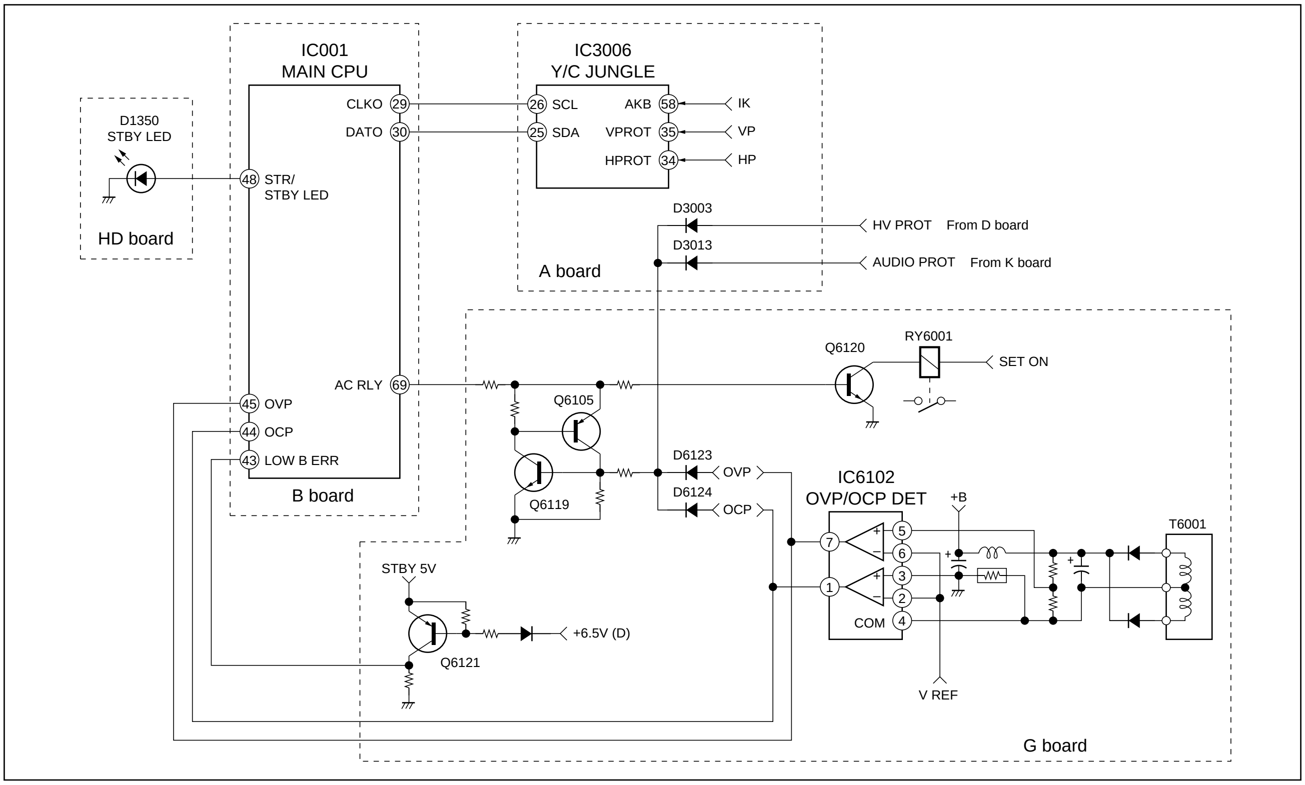
<Method of Ending Self Diagnosis Screen>

- When ending the self-diagnosis screen completely, turn the power switch OFF on the remote commander or the main unit.

6. Self-diagnosis function operation

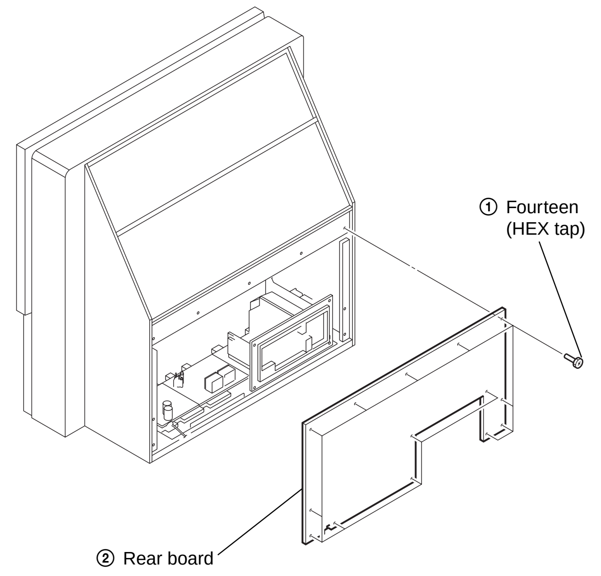
OCP	Low B and +B line detect DET SHORT, and shut-down POWER ON RELAY. Reset by turning power on/off. In case of +B is loaded approx. 1.5 A or more, microcomputer detects it via IC6102.
OVP	In case of +B becomes approx. 150 V or more, POWER ON RELAY shuts down and microcomputer detects it via IC6102. Reset by turning power on/off just the same as OCP.
Low B	Occurs when set +6.5 V (D) is out.
V Stop	In case of V DRIVE is disappeared, IC3006 detects it and shut-down POWER ON RELAY. Microcomputer detects it and makes LED blinking.
AKB	IK detection. Makes LED blinking in case of microcomputer doesn't detect IK returns of IC3006 (CXA2150AQ) 20 seconds or more.
H Stop	In case of H DRIVE is disappeared, IC3006 detects it and shut-down POWER ON RELAY. Microcomputer receives H Stop data from IC3006 and makes LED blinking.

Self-diagnosis block diagram

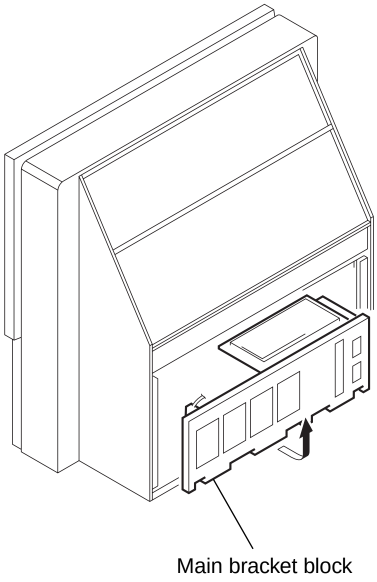

IC001
MAIN CPU
CLKO 29
DATO 30
48 STR/
STBY LED
AC RLY 69
45 OVP
44 OCP
43 LOW B ERR
B board
D1350
STBY LED
HD board
IC3006
Y/C JUNGLE
26 SCL
25 SDA
AKB 58
VPROT 35
HPROT 34
IK
VP
HP
D3003
HV PROT
From D board
D3013
AUDIO PROT
From K board
A board
Q6120
RY6001
SET ON
Q6105
Q6119
D6123
OVP
D6124
OCP
IC6102
OVP/OCP DET
+B
7
1
5
6
3
2
4
COM
T6001
STBY 5V
Q6121
+6.5V (D)
V REF
G board

SECTION 2
DISASSEMBLY

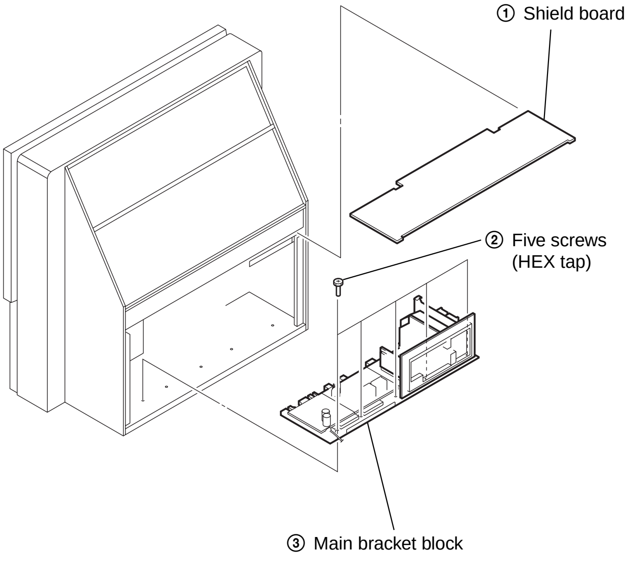
2-1. REAR BOARD REMOVAL


① Fourteen
(HEX tap)
② Rear board

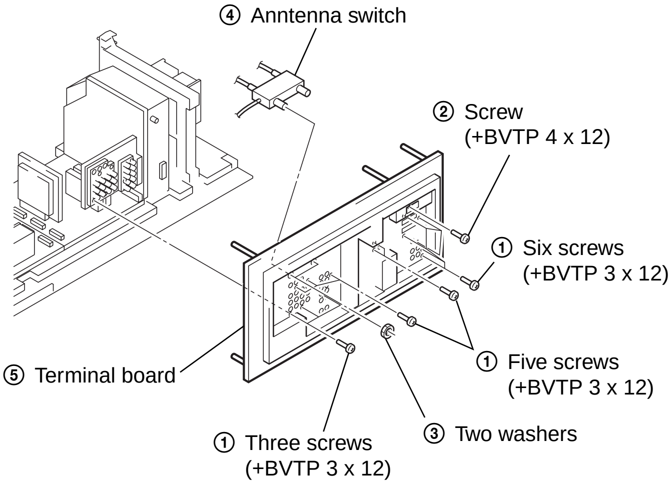
2-3. SERVICE POSITION


Main bracket block

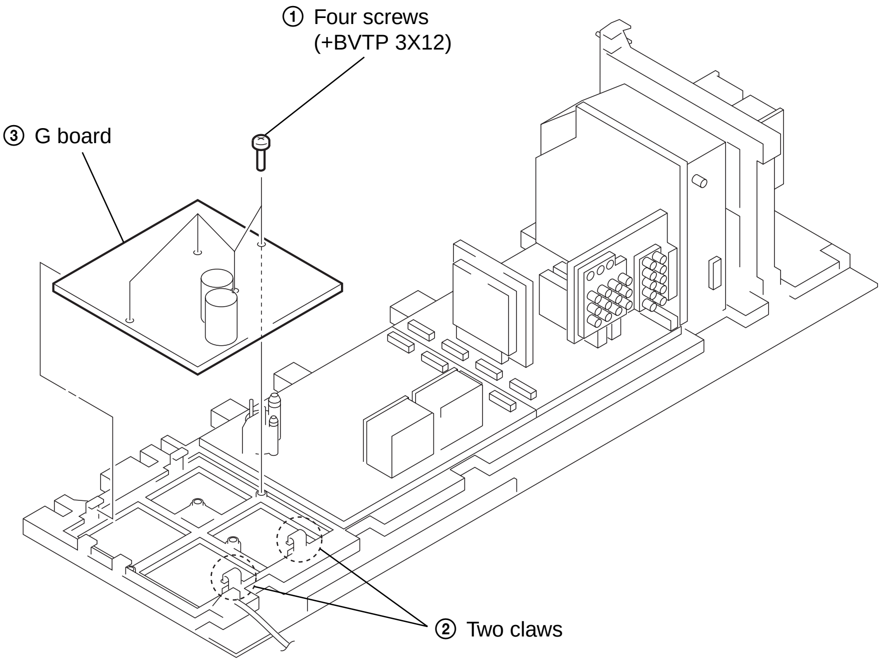
2-2. MAIN BRACKET BLOCK REMOVAL


① Shield board
② Five screws
(HEX tap)
③ Main bracket block

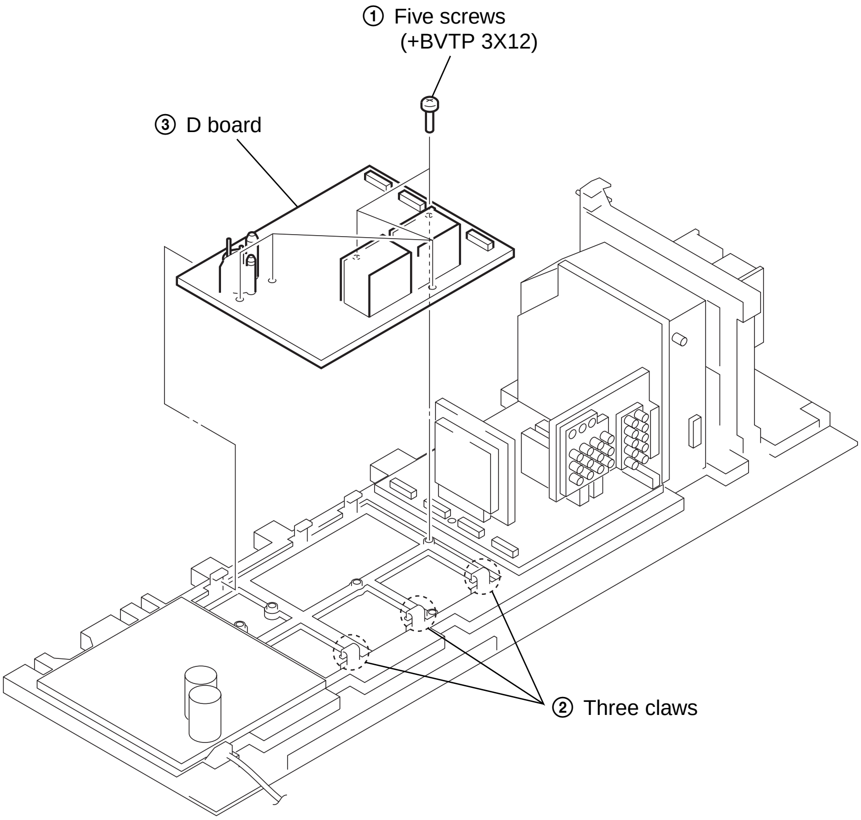
2-4. TERMINAL BOARD REMOVAL


④ Anntenna switch
② Screw
(+BVTP 4 x 12)
① Six screws
(+BVTP 3 x 12)
⑤ Terminal board
① Five screws
(+BVTP 3 x 12)
③ Two washers
① Three screws
(+BVTP 3 x 12)

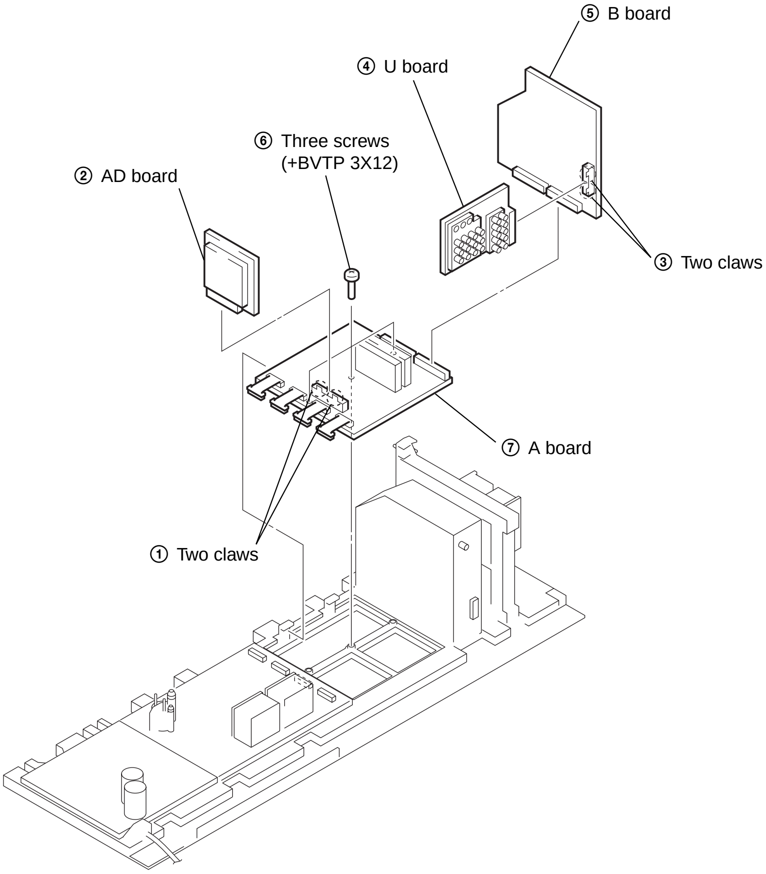
2-5. G BOARD REMOVAL


① Four screws
(+BVTP 3X12)
③ G board
② Two claws

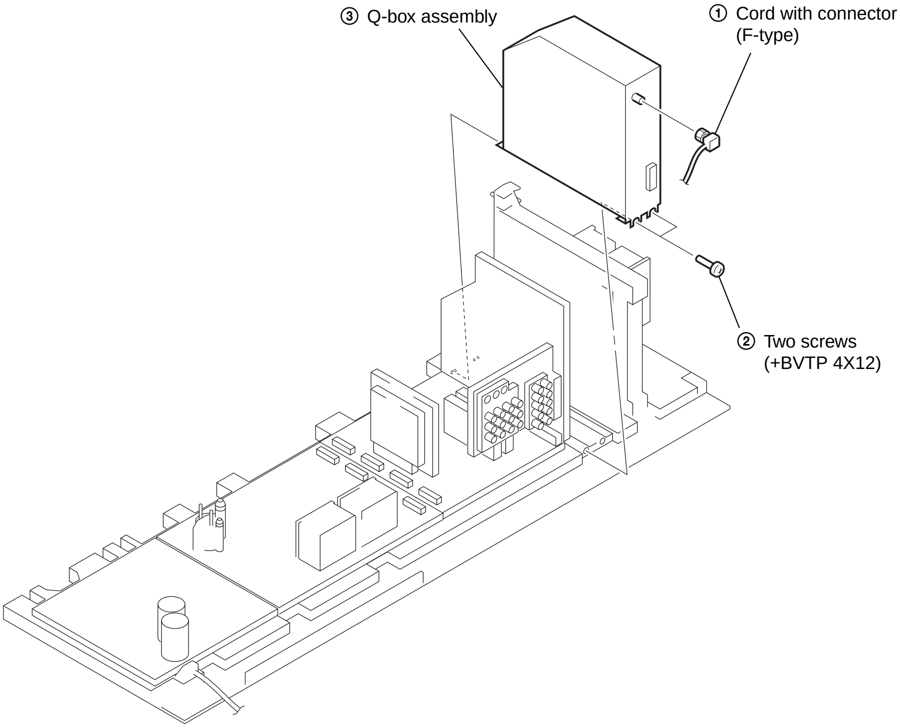
2-6. D BOARD REMOVAL


① Five screws
(+BVTP 3X12)
③ D board
② Three claws

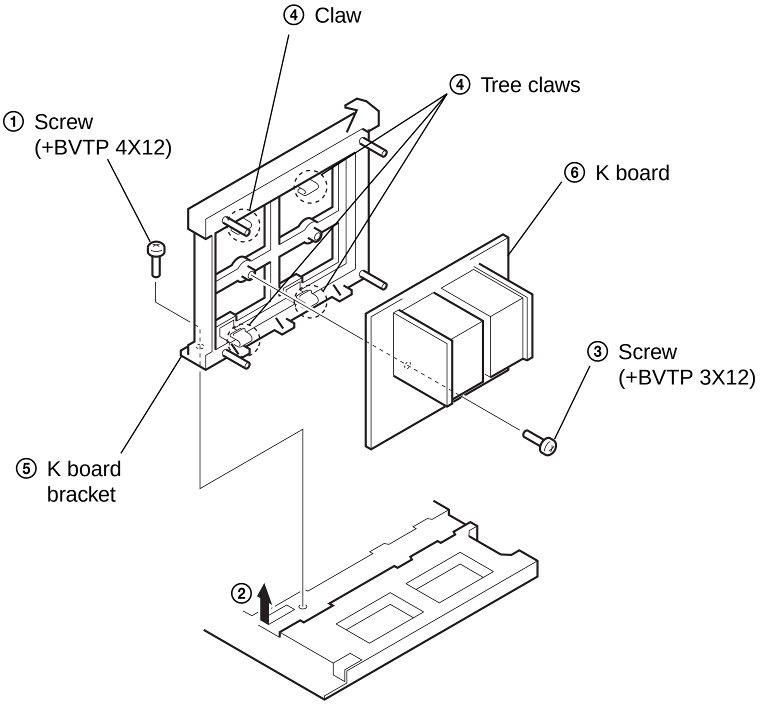
2-7. AD, U, B, AND A BOARDS REMOVAL


⑤ B board
④ U board
⑥ Three screws
(+BVTP 3X12)
② AD board
③ Two claws
⑦ A board
① Two claws

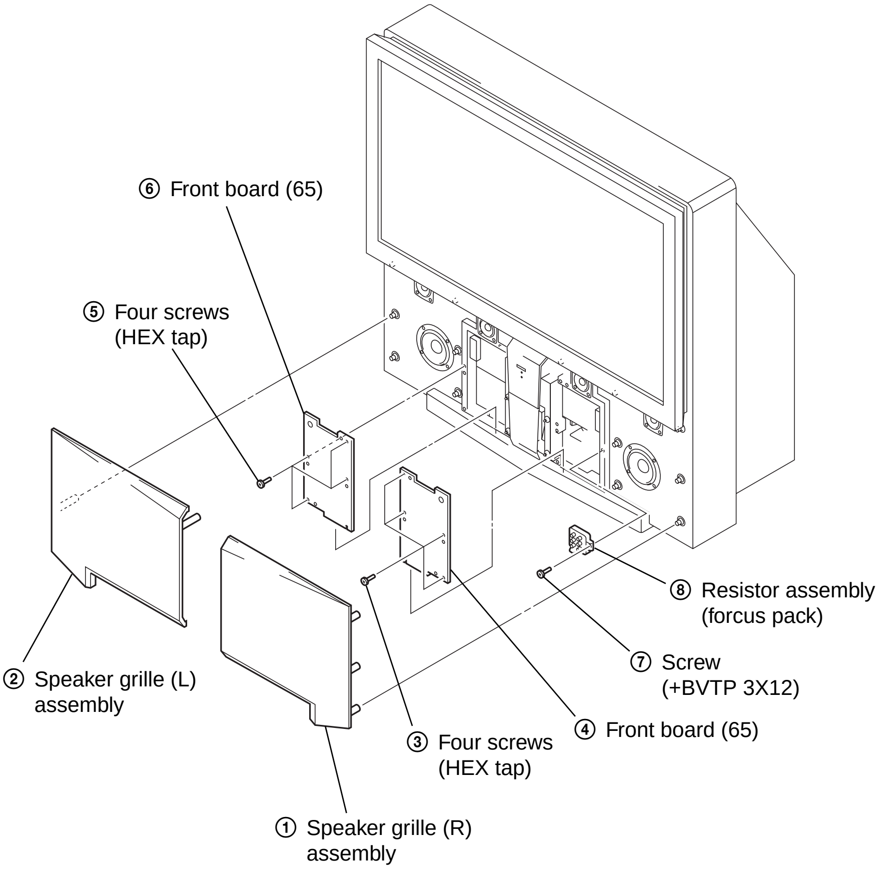
2-8. Q-BOX ASSEMBLY REMOVAL


③ Q-box assembly
① Cord with connector
(F-type)
② Two screws
(+BVTP 4X12)

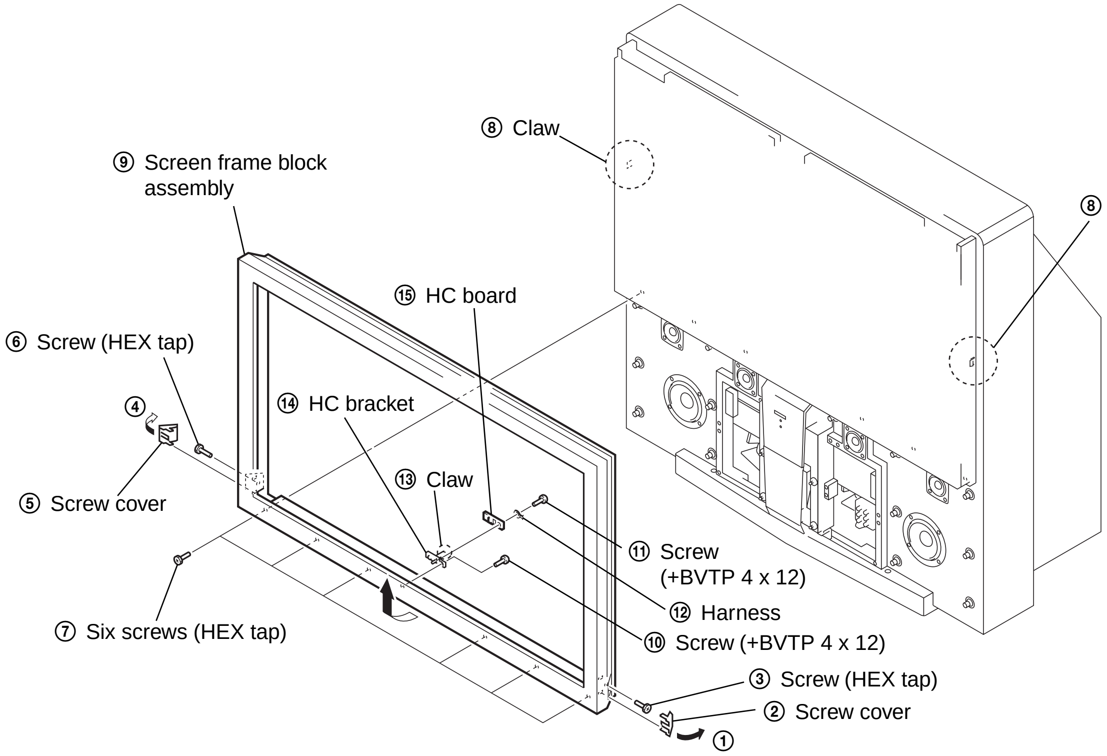
2-9. K BOARD REMOVAL


④ Claw
④ Tree claws
① Screw
(+BVTP 4X12)
⑥ K board
③ Screw
(+BVTP 3X12)
⑤ K board
bracket
②

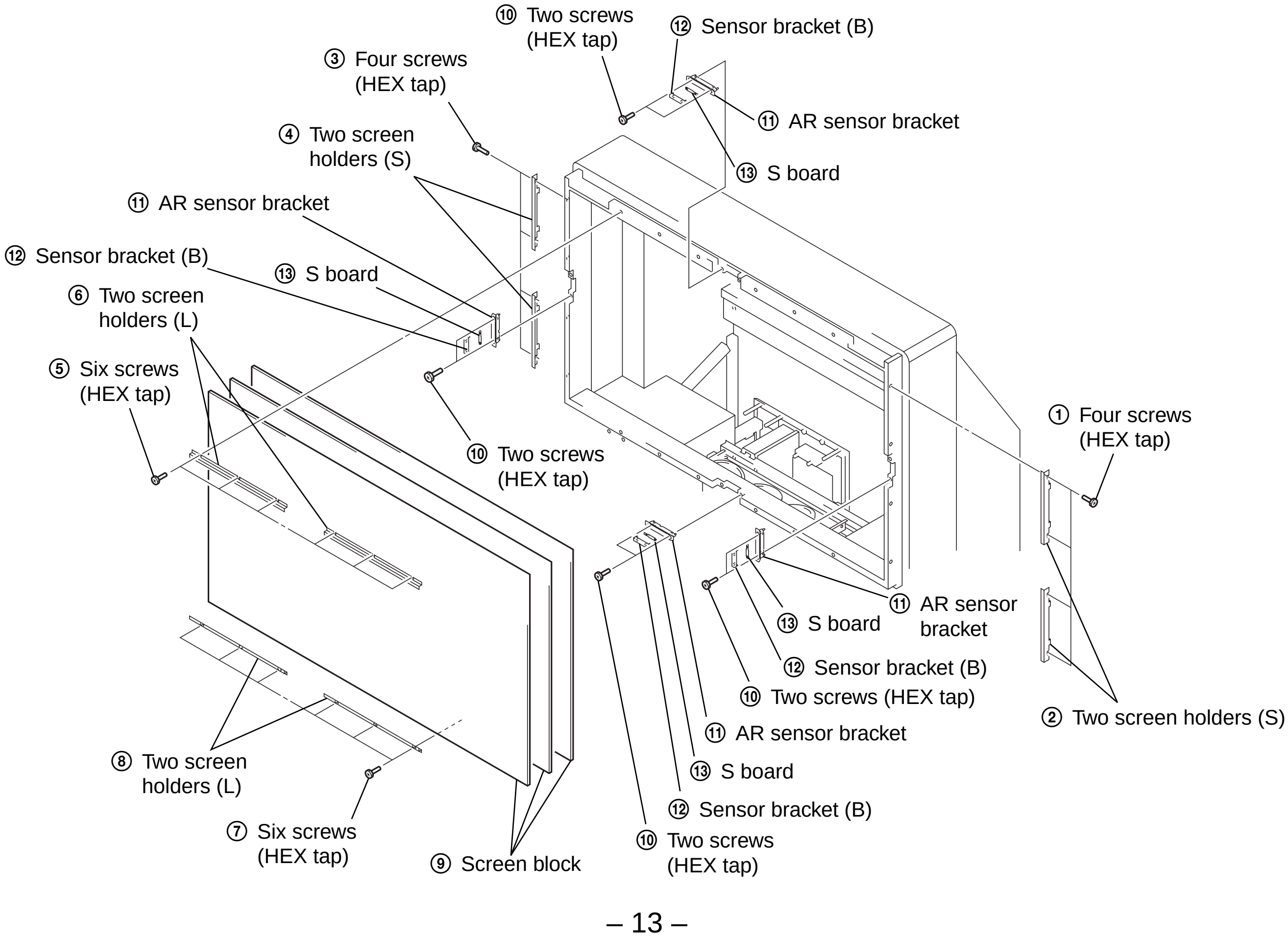
2-10. RESISTOR ASSEMBLY (FOCUS PACK) REMOVAL


⑥ Front board (65)
⑤ Four screws
(HEX tap)
⑧ Resistor assembly
(forcus pack)
⑦ Screw
(+BVTP 3X12)
② Speaker grille (L)
assembly
④ Front board (65)
③ Four screws
(HEX tap)
① Speaker grille (R)
assembly

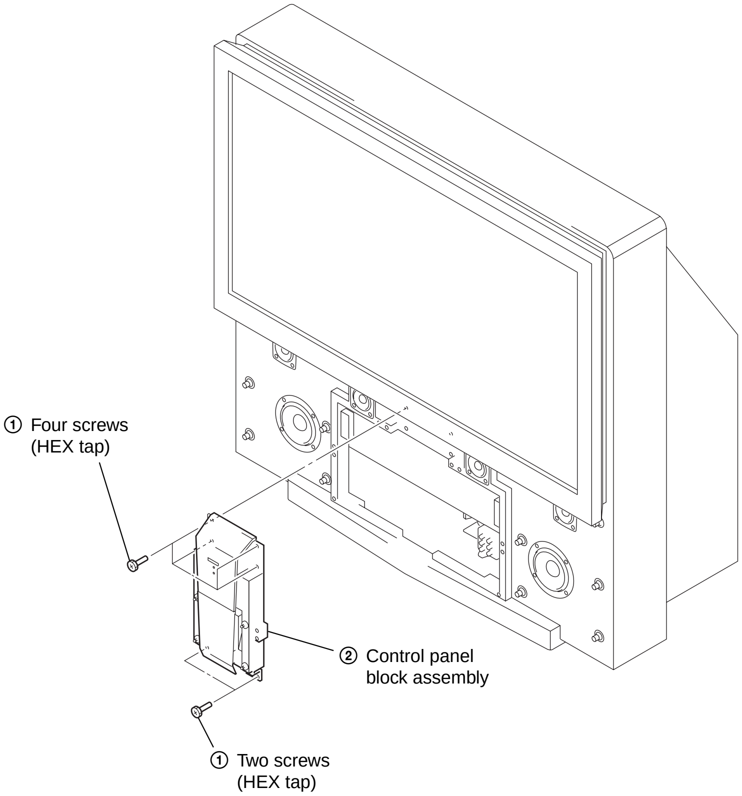
2-11. SCREEN FRAME BLOCK ASSEMBLY


⑧ Claw
⑨ Screen frame block assembly
⑧ Claw
⑮ HC board
⑥ Screw (HEX tap)
④
⑭ HC bracket
⑬ Claw
⑤ Screw cover
⑪ Screw (+BVTP 4 x 12)
⑫ Harness
⑦ Six screws (HEX tap)
⑩ Screw (+BVTP 4 x 12)
③ Screw (HEX tap)
② Screw cover
①

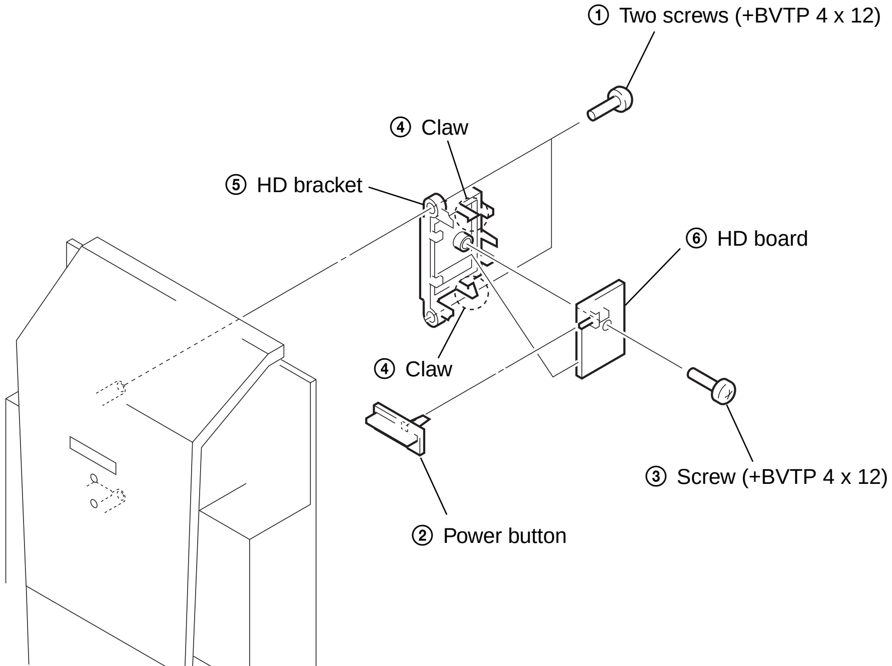
2-12. S BOARD REMOVAL


⑩ Two screws (HEX tap)
⑫ Sensor bracket (B)
③ Four screws (HEX tap)
⑪ AR sensor bracket
④ Two screen holders (S)
⑬ S board
⑪ AR sensor bracket
⑫ Sensor bracket (B)
⑬ S board
⑥ Two screen holders (L)
⑤ Six screws (HEX tap)
① Four screws (HEX tap)
⑩ Two screws (HEX tap)
⑪ AR sensor bracket
⑬ S board
⑫ Sensor bracket (B)
⑩ Two screws (HEX tap)
② Two screen holders (S)
⑪ AR sensor bracket
⑬ S board
⑧ Two screen holders (L)
⑫ Sensor bracket (B)
⑦ Six screws (HEX tap)
⑨ Screen block
⑩ Two screws (HEX tap)

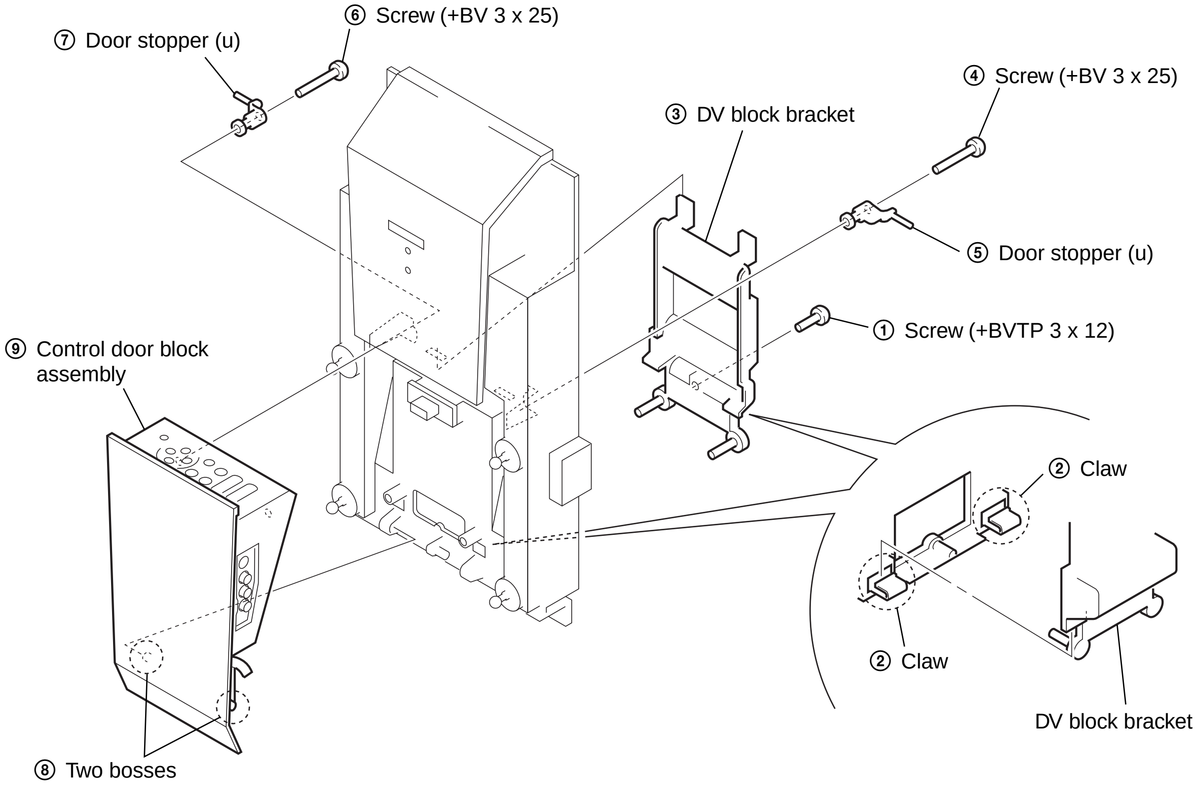
2-13. CONTROL PANEL BLOCK ASSEMBLY


① Four screws
(HEX tap)
② Control panel
block assembly
① Two screws
(HEX tap)

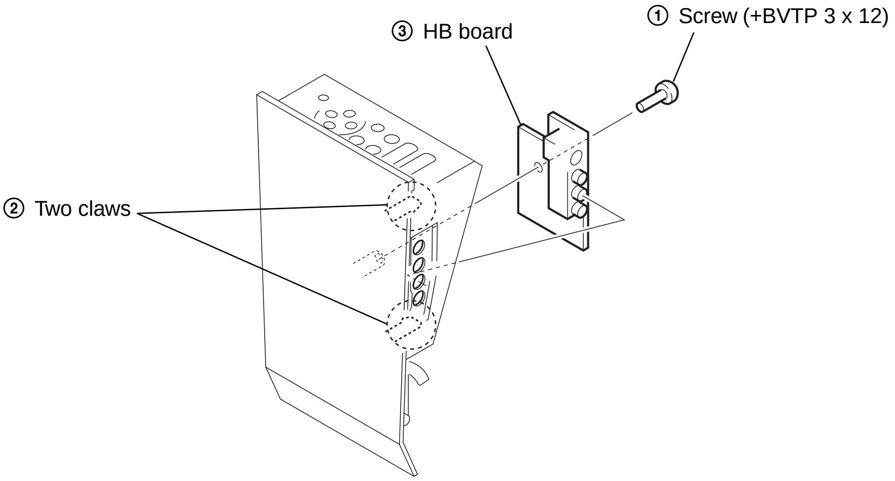
2-14. HD BOARD REMOVAL


① Two screws (+BVTP 4 x 12)
④ Claw
⑤ HD bracket
⑥ HD board
④ Claw
③ Screw (+BVTP 4 x 12)
② Power button

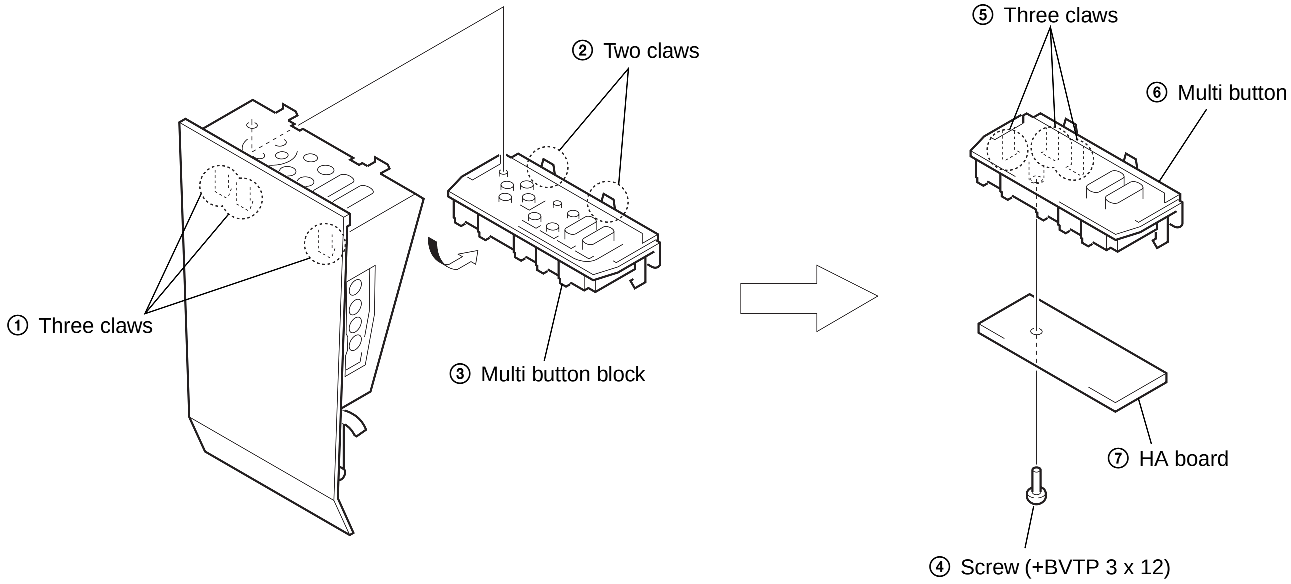
2-15. CONTROL DOOR BLOCK ASSEMBLY


⑥ Screw (+BV 3 x 25)
⑦ Door stopper (u)
④ Screw (+BV 3 x 25)
③ DV block bracket
⑤ Door stopper (u)
① Screw (+BVTP 3 x 12)
⑨ Control door block assembly
② Claw
② Claw
DV block bracket
⑧ Two bosses

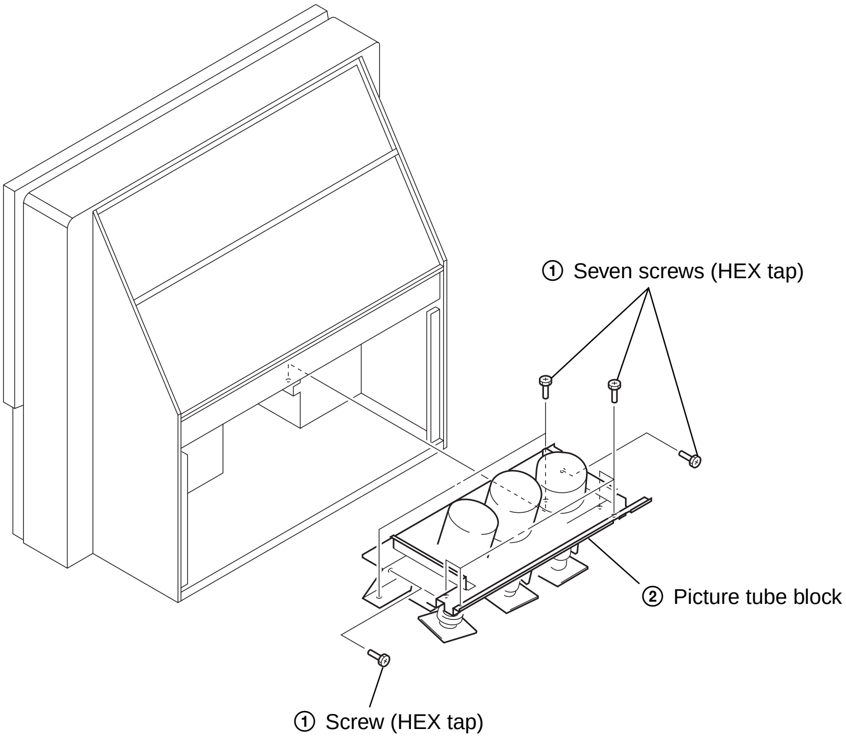
2-16. HB BOARD REMOVAL


③ HB board
① Screw (+BVTP 3 x 12)
② Two claws

2-17. HA BOARD REMOVAL

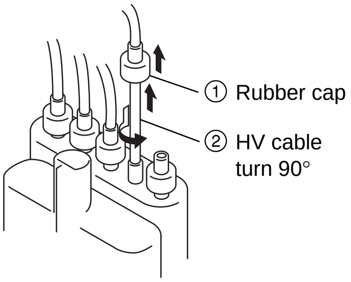

② Two claws
① Three claws
③ Multi button block
⑤ Three claws
⑥ Multi button
⑦ HA board
④ Screw (+BVTP 3 x 12)

2-18. PICTURE TUBE BLOCK REMOVAL

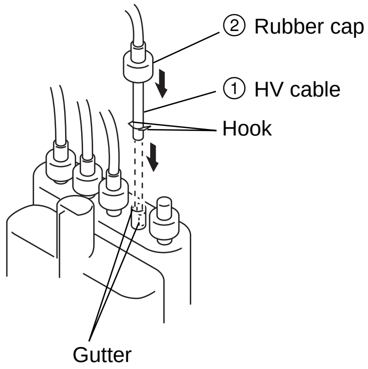

① Seven screws (HEX tap)
② Picture tube block
① Screw (HEX tap)

2-19. HIGH-VOLTAGE CABLE REMOVAL AND INSTALLATION

(1) Removal

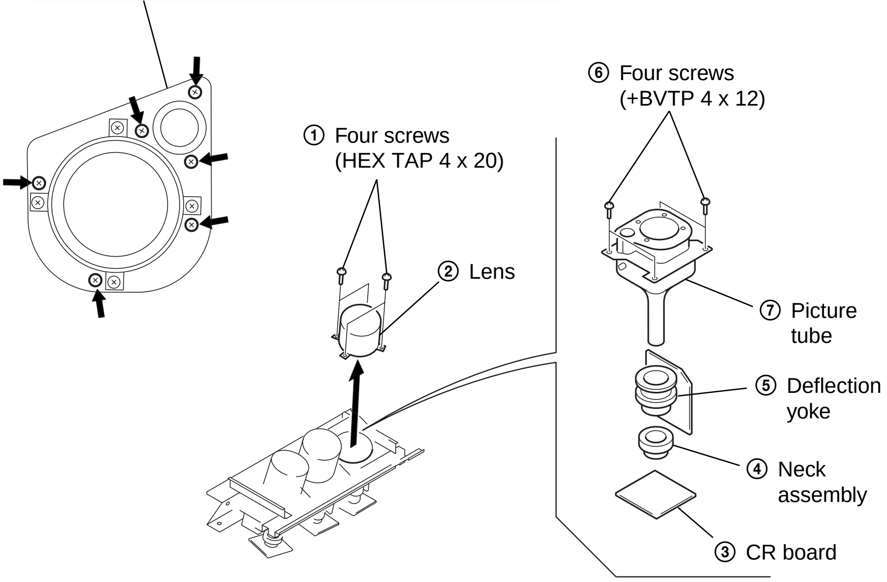

① Rubber cap
② HV cable turn 90°

(2) Installation


② Rubber cap
① HV cable
Hook
Gutter

2-20. PICTURE TUBE REMOVAL

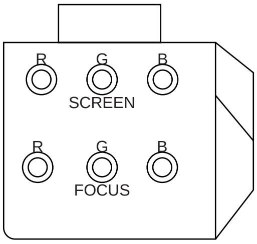
Removing the arrow-marked screw is strictly inhibited.
If removed, it may cause liquid spill.


① Four screws (HEX TAP 4 x 20)
② Lens
⑥ Four screws (+BVTP 4 x 12)
⑦ Picture tube
⑤ Deflection yoke
④ Neck assembly
③ CR board

SECTION 3
SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the focus pack all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.



Focus Pack

Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT

Fine Mode is recommended to set screen controls to their optimal condition. It is necessary to build the simple jig, illustrated below, using 3-watt resistors. Please note, that if the proper voltage is not obtained with their listed values, resistors, then please increase or decrease one of the values in the resistor network to obtain the correct voltage.

1. Select VIDEO1 mode without signals.
2. Connect G2 JIG to TP3802 (200V) of CG board and GND.
3. SW on JIG.
4. Connect an oscilloscope to the SG3701(KR), SG3801(KG) and SG3901(KB) of CR board, CG board and CB board.
5. Adjust R, G and B screen voltage to 175 ± 1V with screen VR on the focus pack.

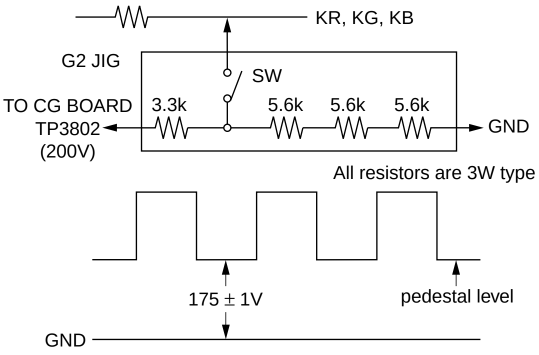


Fig. 3-2

3-3. DEFLECTION YOKE TILT ADJUSTMENT

1. Connect the color bar generator monoscope pattern to VIDEO1 input.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red is aligned in the mode Cover the both green and blue picture lenses with the lens caps and the tilt of the deflection yoke for blue is aligned with in the mode Cover the both green and red picture lenses with the lens caps is aligned the same as was done for green.

Note: Instead of items 2 and 5, you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

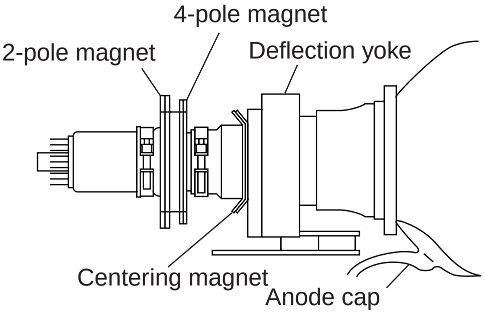


Fig. 3-3

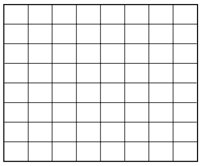
3-4. FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander in the service mode. For details of the usage of the service mode and the remote commander, please refer the item 3-10. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER.

1. Loosen the lens screw.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green lens to adjust to the optimum focus point with the crosshatch signal.
4. Tighten the lens screw.
5. Cover the both green and blue picture lenses with the lens caps to show only the red color.
6. Adjust red CRT lens just the same as green.
7. Cover the both green and red picture lenses with the lens caps to show only the blue color.
8. Adjust blue CRT lens just the same as green.
9. After adjusting the items 3-5. FOCUS VR ADJUSTMENT, 3-6. 2-POLE MAGNET ADJUSTMENT, 3-7. CENTER MAGNET ADJUSTMENT and 3-8. 4-POLE MAGNET ADJUSTMENT, adjust again to the optimum focus point.

Note: Instead of items 2, 5 and 7, you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

*: Every time you press 6, the test signal changes to “crosshatch+video signal” - “crossbatch+borderline(black)” - “crosshach(black)” - “dots(black)” - off.



Test signal

Fig. 3-4

3-5. FOCUS VR ADJUSTMENT

1. Set generator to crosshatch.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green focus VR on the focus pack to adjust to the optimum focus point with the crosshatch signal.
4. Cover the both green and blue picture lenses with the lens caps to show only the red color.
5. Turn the red focus VR on the focus pack to adjust to the optimum focus point with the crosshatch signal.
6. Cover the both green and red picture lenses with the lens caps to show only the blue color.
7. Turn the blue focus VR on the focus pack to adjust to the optimum focus point with the crosshatch signal.
8. After adjusting the items 3-4. FOCUS LENS ADJUSTMENT, 3-6. 2-POLE MAGNET ADJUSTMENT, 3-7. CENTER MAGNET ADJUSTMENT and 3-8. 4-POLE MAGNET ADJUSTMENT, adjust again to the optimum focus point.

Note: Instead of items 2, 4 and 6, you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

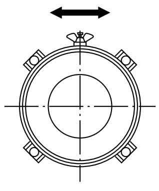


Fig. 3-5

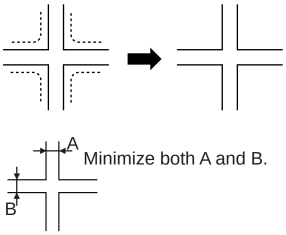


Fig. 3-6

3-6. 2-POLE MAGNET ADJUSTMENT

1. Set the picture mode to“Pro” and picture to MAX.
2. Receive the dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus pack to the left and set to overfocus to enlarge the spot.
5. Adjust 2-pole magnet so that the bright spot should be centered.
6. Align the green focus VR and set for just (precise) focus.
7. Perform the same alignment for red and blue.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

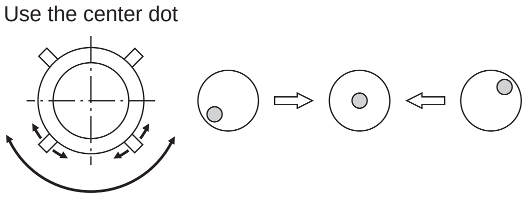


Fig. 3-7

3-7. CENTERING MAGNET ADJUSTMENT

1. Set the picture mode to “Pro”.
2. Receive the monoscope signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Adjust the green centering magnet to put the center of the monoscope signal to the center of the screen.
5. Adjust the red centering magnet in the same way.
6. Adjust the blue centering magnet in the same way.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

3-8. 4-POLE MAGNET ADJUSTMENT

1. Set the picture mode to“Pro” and picture to MAX.
2. Receive the dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus pack to the right and set the spot will become smaller.
5. Adjust the 4-Pole Magnet so that the spot becomes round for green and red.
6. Adjust blue spot to an oval shape. x : y = 1 : 1.2

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

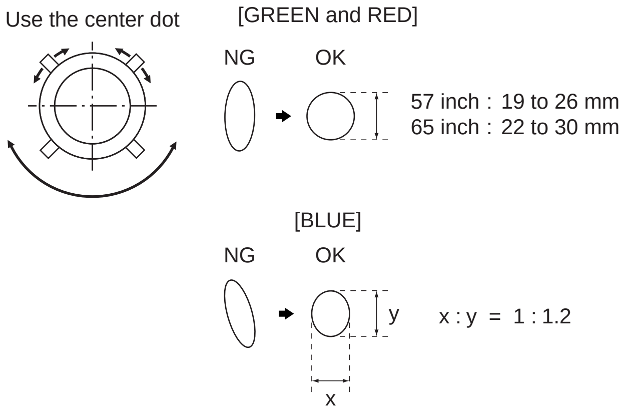


Fig. 3-8

3-9. DEFOCUS ADJUSTMENT (BLUE)

Note: Please adjust the blue dot to be slightly larger than red and green dots. This adjustment provides a more pleasing picture to the customer.

1. Select the picture mode to “Pro”.
2. Receive the dot signal.
3. Cover the both red md green picture lenses with the lens caps to show only the blue color.
4. Turn the blue focus VR on the focus pack to right to make the round dot elipical.
5. Check flare with high luminace signal, make sure flare is minimal while dot shape is elipical.
6. Set generdtor to all white signal and check uniformity.

Note: Instead of item 3 you can cut off the unnecessary color beams by controlling the service mode “1 RGBS” of “2150P-2”.

3-10. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using remote commander (RM-Y185), all circuit adjustments can be made.

NOTE : Test Equipment Required.

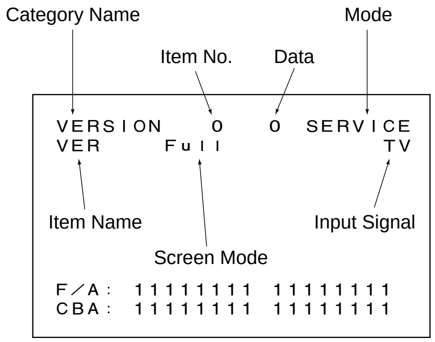
1. Pattern Generator (with component outputs)
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. Method of Setting the Service Adjustment Mode

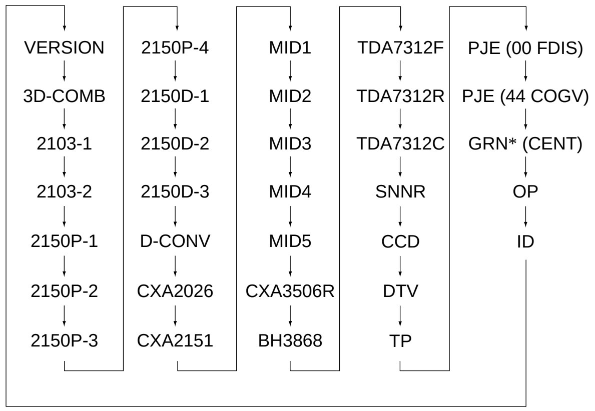
SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. DISPLAY → 5 → VOL (+) → TV POWER on the remote commander. (Press each button within a second.)

SERVICE MODE ADJUSTMENT


Category Name
Mode
Item No.
Data
VERSION 0 0 SERVICE
VER Full TV
Item Name
Input Signal
Screen Mode
F／A： 11111111 11111111
CBA： 11111111 11111111

3. The SCREEN displays the item being adjusted.
4. Press “①” or “④” on the remote commander to select the adjustment item.
5. Press “③” or “⑥” on the remote commander to change the data.
6. Press “②” or “⑤” on the remote commander to select the category. Every time you press “②” (Category up), Service mode changes in the order as shown below.


VERSION
3D-COMB
2103-1
2103-2
2150P-1
2150P-2
2150P-3
2150P-4
2150D-1
2150D-2
2150D-3
D-CONV
CXA2026
CXA2151
MID1
MID2
MID3
MID4
MID5
CXA3506R
BH3868
TDA7312F
TDA7312R
TDA7312C
SNNR
CCD
DTV
TP
PJE (00 FDIS)
PJE (44 COGV)
GRN* (CENT)
OP
ID

* : GRN , RED or BLU

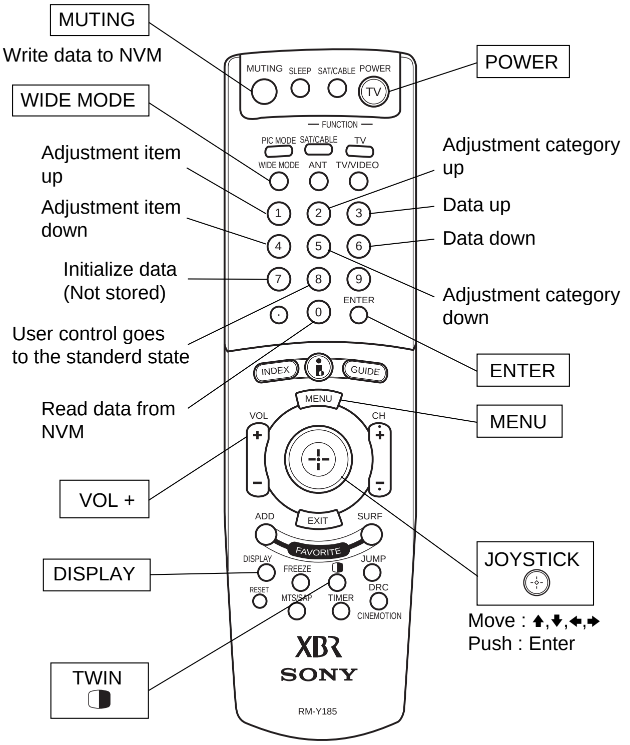
7. If you want to recover the latest values press “⓪” then “ENTER” to read the memory.
8. Press “MUTING” then “ENTER” to write into memory.
9. Turn power off.

Note: Press “⑧” then “ENTER” on the remote commander to initialize or turn set off and on to exit.

2. Memory Write Confirmation Method

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to service mode.
3. Call the adjusted items again and confirm they were adjusted.

3. Adjusting Buttons and Indicator


MUTING
Write data to NVM
WIDE MODE
Adjustment item up
Adjustment item down
Initialize data (Not stored)
User control goes to the standerd state
Read data from NVM
VOL +
DISPLAY
TWIN
POWER
Adjustment category up
Data up
Data down
Adjustment category down
ENTER
MENU
JOYSTICK
Move : ↑,↓,←,→
Push : Enter
MUTING
SLEEP
SAT/CABLE
POWER
TV
FUNCTION
PIC MODE
SAT/CABLE
TV
WIDE MODE
ANT
TV/VIDEO
1
2
3
4
5
6
7
8
9
0
ENTER
INDEX
GUIDE
MENU
VOL
CH
ADD
EXIT
SURF
FAVORITE
DISPLAY
FREEZE
JUMP
RESET
MTS/SAP
TIMER
DRC
CINEMOTION
XBR
SONY
RM-Y185

RM-Y185

Note : When the PJE mode is activated, which displays an internally generated signal, several buttons on the remote commander will have different functions than listed above. Therefore, when in the PJE mode, refer to page 41 for button functions.

4. Service Mode List

Note: • ▨ shaded items are fixed. There is no need to change data. Others are different a little in the sets individually. Basically, there is no need to change data, too.

3D-COMB

3D Comb Filter (μPD64082)

Item		Function
No.	Name	

			Common
0	NRMD	Noise reduction mode [0: YCS, 1: YCS+, 2: MNNR, 3: YCNR]	0
1	YAPS	Y aperture/peaking [0: OFF, 1: A-ON, 2: D-ON, 3: A/D-ON]	3

		Depends on NRMD data	NRMD (0)	NRMD (1)	NRMD (2)	NRMD (3)
2	CLKS	System CLK [0: Auto, 1: Forced-Burst, 2/3: Forced-H freq.]	1	1	1	1

			Common
3	NSDS	Signal [0: Auto, 1: F-ST, 2: F-nonST (H), 2/3: F-nonST(V)]	3
4	MSS	Processing [0: Auto, 1: F-Inter Frame, 2/3: F-InterLine]	0
5	KILS	Color Killer [0: Auto, 1: Port Cont., 2/3: F-Killer]	2

		Depends on NRMD data	NRMD (0)	NRMD (1)	NRMD (2)	NRMD (3)
6	CDL	Chroma delay time [0: –280 ns, 4: 0 ns, 7: +210 ns]	3	3	3	3
7	DYCO	Y coring level [0: Coring 0, 15: Large amount of Coring]	2	2	2	2
8	DYGA	Y coring gain [0: 0 gain, 15: Maximum gain]	11	11	11	11
9	DCCO	C coring level [0: Coring 0, 15: Large amount of Coring]	4	4	4	4
10	DCGA	C coring gain [0: 0 gain, 15: Maximum gain]	8	8	8	8

			Common
11	YNRL	YNR limit [0: YNR off (0LSB), 3: YNR 3LSB]	1
12	CNRL	CNR limit [0: CNR off (0LSB), 3: CNR 3LSB]	1

		Depends on Signal Input	RF	CV/YC	Video5/Video6
13	VTRH	H hysteresis of nonST signal det. [0: Hys-off, 3: Hys-high]	1	1	1
14	VTRR	H sensitivity of nonST signal det. [0: High, 3: Off]	1	1	1
15	LDSR	Frame sensitivity of nonST signal det. [0: High, 3: Off]	2	2	2

		Depends on Picture Pallete	Vivid	Standard	Movie	Game	Pro
16	VAPG	Vertical aperture gain [0: Off, 7: Maximum]	0	0	0	0	0
17	VAPI	Vertical aperture conv. point [0: Off, 31: Max correction]	0	0	0	0	0

			Vivid		Standard		Movie		Game		Pro		TWIN Any
		Depends on Picture Pallete and Video Input	RF	CV/YC	RF	CV/YC	RF	CV/YC	RF	CV/YC	RF	CV/YC	
18	YPFT	Y peaking freq. [0: 3.58 MHz, 1: 3.86 MHz, 2: 4.08 MHz, 3: 4.22 MHz]	3	3	3	3	3	3	3	3	3	3	3
19	YPFG	Y peaking gain [0: –1 times, 8: 0 times, 15: +0.875 times]	7	5	7	5	7	5	7	5	7	5	7

			Common
20	YHCO	Y coring for y [0: Off, 1: Small, 2: Mid, 3: Large]	0
21	YHCG	Y coring gain for High frequency [0: Normal, 1: 0.5 gain]	1
22	HSSL	Horizontal sync slice level [0: 4LSB, 15: 19LSB]	12
23	VSSL	Vertical sync slice level [0: HSSL+0 LSB, 15: HSSL+15 LSB]	8
24	ADCL	ADC clock delay [0: 0 ns, 1: 3 ns, 2: 17.5 ns, 3: 20.5 ns]	3

		Depends on NRMD data	NRMD (0)	NRMD (1)	NRMD (2)	NRMD (3)
25	D2GA	Motion detect gain	4	4	4	4

		Depends on Signal Input	RF	CV/YC	Video5/Video6
26	SEDY	Select DY detect [0: Low sensitivity, 1: High sensitivity]	1	1	1
27	SEDC	Select DC detect [0: Low sensitivity, 1: High sensitivity]	0	0	0

3D Comb Filter (µPD64082)

Item No.	Item Name	Function	Common
28	KILR	Killer detector [0: Off, 1: Low sensitivity, 15: High sensitivity]	3
29	OP	NRMD for Y/C input [0: Recursive Type, 1: Comb Type]	1

Item No.	Item Name	Function	RF	V1		V2		V3		V4	
		Depends on Signal Input		CV	YC	CV	YC	CV	YC	CV	YC
30	NR1	Initial setting of NR On/Off [0: On, 1: Off]	0	0	0	0	0	0	0	0	0

Item No.	Item Name	Function	Common
31	NR2	S/N adaptive processing [0: On, 1: Off]	0
32	HPLL	H PLL filter [0: Slow convergence, 1: Quick convegence	1
33	BPLL	Burst PLL filter [0: Quick convergence, 1: Slow convergence]	1
34	FSCF	Burst extraction gain [0: High gain, 1: Low gain]	0
35	PLLF	PLL loop gain [0: Low gain, 1: High gain]	1

Item No.	Item Name	Function Depends on Signal Input	RF	CV/YC	Video5/Video6
36	CC3N	C filter characteristic of comb filter [0: Narrow, 1: Wide]	0	0	0

Item No.	Item Name	Function	Common
37	HDP	Horizontal phase [0: –1.12 µs, 4: 0 µs, 7: +0.84 µs]	5
38	BGPS	Burst gate start [0: HS center +2 µs, 15: HS center +5.75 µs]	4
39	BGPW	Burst gate width [0: 0.5 µs, 15: 4.25 µs]	10
40	TEST	Test bit [0: Normal, 1: Test mode]	0
41	WSC	Noise det. coring [0: 0LSB, 1: 1LSB, 2: 2LSB, 3: 3LSB]	1

Item No.	Item Name	Function Depends on Signal Input	RF	CV/YC	Video5/Video6
42	LIND	262P detect [xx1: nonST H, x1x: nonST V, 1xx: LD still]	0	0	2

2103-1

Main Chroma Decoder (CXA2103)

Item		Function
No.	**Name**	

		Depends on Signal Path	**DRC**	**VDO**
0	YLEV	Y out level gain [0: 2.9 dB, 63: 9.0 dB]	35	35
1	CLEV	CbCr out level gain [0: 2.9 dB, 63: 9.0 dB]	50	42

		Depends on Signal Input	**RF**	**CV/YC**
2	SCON	Sub contrast [0: –2 dB, 15: +2 dB]	9	9
3	SCOL	Sub color [0: –2 dB, 15: +2 dB]	2	2
4	SHUE	Sub hue [0: –8.8 deg, 15: +8.8 deg]	11	5
5	YDLY	Y/C delay [0: Ref, 1: 30 ns Y delay, 2: 60 ns, 3: 100 ns]	0	0

		Depends on Signal Input	**RF**	**CV**	**YC**	**Video5**
6	SHAP	Sharpness [0: –3 dB, 15: +3 db]	6	8	8	4
7	SHFO	Sharpness F0 [0: 2.5 MHz, 1: 3.0 MHz, 2: 3.5 MHz, 3: 4.0 MHz]	0	0	0	3
8	PREO	Pre-over ratio [0: 1.5:1, 1: 1:1, 2: 1:1.5, 3: 1:2]	3	3	3	3

		Depends on Signal Input	**RF**	**CV**	**YC**
9	BPFO	Chroma BPF F0 [0: fsc, 1: fsc+400 kHz, 2: fsc+800 kHz, 3: fsc+1.2 MHz]	3	0	0
10	BFFQ	Chroma BPF Q [0: 2.0, 1: 1.5, 2: 1.2, 3: 1.0]	0	3	3
11	BPSW	Chroma BPF On/Off [0: Off, 1: On]	1	0	0
12	TRAP	Chroma trap on Y On/Off [0: Off, 1: On]	0	0	0

		Depends on Signal Path	**DRC**	**VDO**
13	LPF	Output LPF (YCbCr) [0: On, 1: Off (through)]	1	0

		Depends on Signal Input	**RF**	**CV/YC**	**Video5/Video6**
14	AFCG	PLL loop gain [0: fast, 1: slow]	1	0	0
15	CDMD	Count down mode [0/1/3: CountDown, 2: H look *Tc: 0>1>3]	3	3	3
16	SSMD	Slice level [0: auto, 1: HV 65%, 2: H 25% V 65%, 3: HV 25%]	0	0	0
17	HMSK	Mask for Macro Vision [0: Off, 1: On]	0	1	1
18	HALI	Auto H alignment [0: Off, 1: On (AFC free run)]	0	0	0
19	PPHA	Picture/H Tim phase [0: –0.5 µs, 15: +0.5 µs]	7	7	7

		Depends on Signal Input	**RF**	**Video5**	**Video6**
20	CBOF	Cb/Ext Cb offset [0: –16 mV, 63: +16 mV]	26	29	25
21	CROF	Cr/Ext Cr offset [0: –16 mV, 63: +16 mV]	23	30	25

		Depends on CXA2150P-4 BLK	**Single**	**BLK (0)**	**BLK (1)**	**BLK (2)**	**BLK (3)**	**BLK (4)**	**BLK (5)**	**BLK (6)**	**BLK (7)**
**22	ATPD	Auto pedestal point [0: Through, 1: 20 IRE, 2: 30 IRE, 3: 40 IRE]	0	0	1	2	2	2	2	3	1
**23	DCTR	DC transfer ratio [0: 100%, 1: 85%, 2: 90%, 3: 85%]	0	0	2	1	1	3	3	2	2

** Main and Sub CXA2103 share the same data for items 22 and 23.

2103-2

Sub Chroma Decoder (CXA2103)

Item		Function		
No.	Name			
		Depends on Signal Path	DRC	VDO
0	YLEV	Y out level gain [0: 2.9 dB, 63: 9.0 dB]	35	35
1	CLEV	CbCr out level gain [0: 2.9 dB, 63: 9.0 dB]	50	42

No.	Name	Depends on Signal Input	RF	CV/YC
2	SCON	Sub contrast [0: –2 dB, 15: +2 dB]	8	8
3	SCOL	Sub color [0: –2 dB, 15: +2 dB]	3	3
4	SHUE	Sub hue [0: –8.8 deg, 15: +8.8 deg]	10	3
5	YDLY	Y/C delay [0: Ref, 1: 30 ns Y delay, 2: 60 ns, 3: 100 ns]	0	0

No.	Name	Depends on Signal Input	RF	CV	YC	Video5
6	SHAP	Sharpness [0: –3 dB, 15: +3 db]	0	8	8	4
7	SHFO	Sharpness F0 [0: 2.5 MHz, 1: 3.0 MHz, 2: 3.5 MHz, 3: 4.0 MHz]	0	0	0	3
8	PREO	Pre-over ratio [0: 1.5:1, 1: 1:1, 2: 1:1.5, 3: 1:2]	3	3	3	3

No.	Name	Depends on Signal Input	RF	CV	YC
9	BPFO	Chroma BPF F0 [0: fsc, 1: fsc+400 kHz, 2: fsc+800 kHz, 3: fsc+1.2 MHz]	0	0	0
10	BPFQ	Chroma BPF Q [0: 2.0, 1: 1.5, 2: 1.2, 3: 1.0]	3	3	3
11	BPSW	Chroma BPF On/Off [0: Off, 1: On]	0	1	1
12	TRAP	Chroma trap on Y On/Off [0: Off, 1: On]	0	0	0

No.	Name	Depends on Signal Path	DRC	VDO
13	LPF	Output LPF (YCbCr) [0: On, 1: Off (through)]	1	0

No.	Name	Depends on Signal Input	RF	CV/YC	Video5/Video6
14	AFCG	PLL loop gain [0: fast, 1: slow]	1	0	0
15	CDMD	Count down mode [0/1/3: CountDown, 2: H look *Tc: 0>1>3]	3	3	3
16	SSMD	Slice level [0: auto, 1: HV 65%, 2: H 25% V 65%, 3: HV 25%]	0	0	0
17	HMSK	Mask for Macro Vision [0: Off, 1: On]	0	1	1
18	HALI	Auto H alignment [0: Off, 1: On (AFC free run)]	0	0	0
19	PPHA	Picture/H Tim phase [0: –0.5 µs, 15: +0.5 µs]	7	7	7

No.	Name	Depends on Signal Input	RF	Video5	Video6
20	CBOF	Cb/Ext Cb offset [0: –16 mV, 63: +16 mV]	27	31	31
21	CROF	Cr/Ext Cr offset [0: –16 mV, 63: +16 mV]	22	31	31

No.	Name		Common
22	2SCO	SCON offset of CV for 2H Conb [0: –7step, 7: ±0step, 15: +8step]	7
23	2SCL	SCOL offset of CV for 2H Conb [0: –7step, 7: ±0step, 15: +8step]	7
24	2SHU	SHUE offset of CV for 2H Conb [0: –7step, 7: ±0step, 15: +8step]	7

2150P-1

Video Processor (CXA2150)

Item		Function	Analog		DTV	TWIN
No.	Name	Depends on Signal Path and Source	1080i *1	other *2		
0	YOF	Y offset [0: –39 mV, 7: 0 mV, 15: +45 mV]	7	7	7	7
1	CBOF	Cb offset [0: B –36 mV G +16 mV, 31: B 0 mV G 0 mV, 63: B +43 mV G –20 mV]	31	37	28	40
2	CROF	Cr offset [0: R –46 mV G +10 mV, 31: R 0 mV G 0 mV, 63: R +55 mV G –12 mV]	31	37	28	40

*1 Used when a 1080i signal by-passes the MID
*2 Used for Analog signals passing through the MID

No.	Name	Function	Common
3	SBRT	Sub brightness [0: –15 IRE, 31: 0 IRE, 63: 15 IRE]	31
4	RDRV	R drive gain [0: –4 dB, 41: 0 dB, 63: +2 dB]	39
5	GDRV	G drive gain [0: –4 dB, 41: 0 dB, 63: +2 dB]	39
6	BDRV	B drive gain [0: –4 dB, 41: 0 dB, 63: +2 dB]	39
7	RCUT	R cut-off [0: –9 dB, 31: 0 dB, 63: +4 dB]	31
8	GCUT	G cut-off [0: –9 dB, 31: 0 dB, 63: +4 dB]	31
9	BCUT	B cut-off [0: –9 dB, 31: 0 dB, 63: +4 dB]	31

No.	Name	Depends on Color Temperature	Warm	Cool
10	WBSW	White balance offset [0: Normal, 1: R 100% G 90% B 70%]	0	0
11	SBOF	Sub brightness offset color temperature [0: –7, 7: 0, 15: +8]	7	7
12	RDOF	RDRV offset [0: –15, 15: 0, 31: +16]	15	15
13	GDOF	GDRV offset [0: –15, 15: 0, 31: +16]	15	15
14	BDOF	BDRV offset [0: –15, 15: 0, 31: +16]	15	15
15	RCOF	RCUT offset [0: –15, 15: 0, 31: +16]	15	15
16	GCOF	GCUT offset [0: –15, 15: 0, 31: +16]	15	15
17	BCOF	BCUT offset [0: –15, 15: 0, 31: +16]	15	15
18	DCOL	Dynamic color, Cool [0: Off, 1: High (2025), 2: Mid (2100), 3: Low]	3	--

2150P-2

Video Processor (CXA2150)

Item		Function	Common
No.	Name		
0	ALBK	Picture + Ref. Pulse on/off for G2 adjustment [0: RGB off, 1: RGB on]	1
1	RGBS	[0: All off, 1: B, 2: G, 3: BG, 4: R, 5: BR, 6: GR, 7:BGR]	7
2	BLKB	Bottom limiter level [Ref. Pulse DC voltage 0: –1.25, 3: –0.65]	3
3	LIML	RGB limiter level [0: 115 IRE, 1: 123 IRE, 2: 131 IRE, 3: 140 IRE]	0
4	PABL	Peak ABL [0: 4.9 Vdc, 15: 6.8 Vdc]	15
5	SABL	Signal ABL level [0: Off, 3: maximum gain]	0
6	AGNG	Black/White aging [0: Normal, 1: Black, 2: White, 3: Inhibit]	0
7	AKBO	AKB on/off [0: On, 1: Off]	0

No.	Name	Depends on Signal Format	Analog 1080i *1	Analog other *2
8	SYPH	H sync delay [0: 0%, 1: –3.125%]	0	0
9	CLPH	Clamp pulse phase [0: +5%, 1: +4%, 2: +1%, 3: +2%]	2	2
10	CLGA	Clamp gate on/off [0: Not gated, 1: Gated with input H sync]	0	0
11	CLSH	Clamp pulse start shift [0: No shift, 1: –3.125% shift from CLPH]	0	0

*1 Used when a 1080i signal by-passes the MID
*2 Used for Analog signals passing through the MID

2150P-3

Video Processor (CXA2150)

Item		Function	Vivid Mode										
No.	Name		RF	CV/YC	Component				DTV				TWIN
		Depends on Signal Format and Picture Pallet			480i	480p	1080i	720p	480i	480p	1080i	720p	
0	SYSM	Bandwidth [0: NTSC, 1: FF, 2: HD, 3: DTV]	1	1	1	1	3	3	1	1	3	3	2
1	VMLV	VM level [0: VM0, 1: VM1, 2: VM2, 3: VM3, 4: VM4, 5: VM5, 6: VM6, 7: VM7]	7	7	7	7	7	7	7	7	7	7	7
2	VMMO	VM mode (VM_LEV) [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
3	VMCR	VM coring level [0: Off, 1: ±5%, 2: ±10%, 3: ±15%]	1	0	0	0	0	0	0	0	0	0	1
4	VMLM	VM limiter level [0: Off, 1: ±83%, 2: ±67%, 3: ±50%]	0	0	0	0	0	0	0	0	0	0	0
5	VMF0	VM f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	2	2	1	1	2	2	0
6	VMDL	VM delay [0: Short, 3: Long]	1	1	1	1	0	0	1	1	0	0	2
7	SHOF	Sharpness offset [0: 0step, 1: +4step, 2: +8step, 3: +12step]	3	1	1	0	2	2	0	0	2	2	0
8	SHF0	Sharpness f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	1
9	PROV	Pre-over ratio [0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1]	3	3	3	3	3	3	3	3	3	3	2
10	F1LV	Sharpness f1 [0: 0 dB, 1: +1 dB, 2: +2 dB, 3: +3 dB]	0	0	0	0	3	3	0	0	3	3	0
11	CDSP	Sharpness at color high [0: 0 dB, 1: +2 dB, 2: +4 dB, 3: +6 dB]	0	0	0	0	0	0	0	0	0	0	0
12	LTLV	LTI level [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
13	LTMD	LTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	0
14	CTLV	CTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
15	CTMD	CTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
16	UBOF	User bright offset [0: BRIGHT +0, ..., 3: BRIGHT +6, ..., 7: BRIGHT +14]	2	2	3	3	0	2	2	2	2	2	0
17	UCOF	User color offset [0: COLOR +0, ..., 3: COLOR +6, ..., 7: COLOR +14]	0	0	0	0	0	0	0	0	0	0	0
18	UHOF	User hue offset [0: HUE +0, 1: HUE +1, 2: HUE +2, 3: HUE +3]	2	2	2	2	2	2	2	2	2	2	2
19	MIDE	MID Enhancement setting table [0: Soft, ..., 63: Sharp]	7	12	17	22	27	32	37	42	47	52	57

			Standard Mode										
			RF	CV/YC	Component				DTV				TWIN
		Depends on Signal Format and Picture Pallet			480i	480p	1080i	720p	480i	480p	1080i	720p	
0	SYSM	Bandwidth [0: NTSC, 1: FF, 2: HD, 3: DTV]	1	1	1	1	3	3	1	1	3	3	2
1	VMLV	VM level [0: VM0, 1: VM1, 2: VM2, 3: VM3, 4: VM4, 5: VM5, 6: VM6, 7: VM7]	7	7	7	7	7	7	7	7	7	7	7
2	VMMO	VM mode (VM_LEV) [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
3	VMCR	VM coring level [0: Off, 1: ±5%, 2: ±10%, 3: ±15%]	1	0	0	0	0	0	0	0	0	0	1
4	VMLM	VM limiter level [0: Off, 1: ±83%, 2: ±67%, 3: ±50%]	0	0	0	0	0	0	0	0	0	0	0
5	VMF0	VM f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	2	2	1	1	2	2	0
6	VMDL	VM delay [0: Short, 3: Long]	1	1	1	1	0	0	1	1	0	0	2
7	SHOF	Sharpness offset [0: 0step, 1: +4step, 2: +8step, 3: +12step]	2	2	2	0	2	3	0	0	2	3	0
8	SHF0	Sharpness f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	1
9	PROV	Pre-over ratio [0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1]	3	3	3	3	3	3	3	3	3	3	2
10	F1LV	Sharpness f1 [0: 0 dB, 1: +1 dB, 2: +2 dB, 3: +3 dB]	0	0	0	0	3	3	0	0	3	3	0
11	CDSP	Sharpness at color high [0: 0 dB, 1: +2 dB, 2: +4 dB, 3: +6 dB]	0	0	0	0	0	0	0	0	0	0	0
12	LTLV	LTI level [0: Off, 1: Low, 2: Mid, 3: High]	2	2	3	3	3	3	3	3	3	3	3
13	LTMD	LTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	0
14	CTLV	CTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
15	CTMD	CTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
16	UBOF	User bright offset [0: BRIGHT +0, ..., 3: BRIGHT +6, ..., 7: BRIGHT +14]	3	3	5	5	7	6	7	7	7	6	2
17	UCOF	User color offset [0: COLOR +0, ..., 3: COLOR +6, ..., 7: COLOR +14]	0	0	0	0	0	0	0	0	0	0	0
18	UHOF	User hue offset [0: HUE +0, 1: HUE +1, 2: HUE +2, 3: HUE +3]	2	2	2	2	2	2	2	2	2	2	2
19	MIDE	MID Enhancement setting table [0: Soft, ..., 63: Sharp]	5	11	16	21	26	31	36	41	46	51	56

Video Processor (CXA2150)

Item		Function	Movie Mode										
No.	Name	Depends on Signal Format and Picture Pallet	RF	CV/YC	Component				DTV				TWIN
					480i	480p	1080i	720p	480i	480p	1080i	720p	
0	SYSM	Bandwidth [0: NTSC, 1: FF, 2: HD, 3: DTV]	1	1	1	1	3	3	1	1	3	3	2
1	VMLV	VM level [0: VM0, 1: VM1, 2: VM2, 3: VM3, 4: VM4, 5: VM5, 6: VM6, 7: VM7]	2	2	2	2	2	2	2	2	2	2	2
2	VMMO	VM mode (VM_LEV) [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
3	VMCR	VM coring level [0: Off, 1: ±5%, 2: ±10%, 3: ±15%]	1	0	0	0	0	0	0	0	0	0	1
4	VMLM	VM limiter level [0: Off, 1: ±83%, 2: ±67%, 3: ±50%]	0	0	0	0	0	0	0	0	0	0	0
5	VMF0	VM f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	2	2	1	1	2	2	0
6	VMDL	VM delay [0: Short, 3: Long]	1	1	1	1	0	0	1	1	0	0	2
7	SHOF	Sharpness offset [0: 0step, 1: +4step, 2: +8step, 3: +12step]	0	0	1	0	2	0	0	0	2	0	0
8	SHF0	Sharpness f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	1
9	PROV	Pre-over ratio [0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1]	3	3	3	3	3	3	3	3	3	3	2
10	F1LV	Sharpness f1 [0: 0 dB, 1: +1 dB, 2: +2 dB, 3: +3 dB]	0	0	0	0	3	3	0	0	3	3	0
11	CDSP	Sharpness at color high [0: 0 dB, 1: +2 dB, 2: +4 dB, 3: +6 dB]	0	0	0	0	0	0	0	0	0	0	0
12	LTLV	LTI level [0: Off, 1: Low, 2: Mid, 3: High]	1	1	1	1	1	1	1	1	1	1	1
13	LTMD	LTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
14	CTLV	CTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
15	CTMD	CTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
16	UBOF	User bright offset [0: BRIGHT +0, ..., 3: BRIGHT +6, ..., 7: BRIGHT +14]	6	6	3	3	3	3	3	3	3	3	4
17	UCOF	User color offset [0: COLOR +0, ..., 3: COLOR +6, ..., 7: COLOR +14]	0	0	0	0	0	0	0	0	0	0	0
18	UHOF	User hue offset [0: HUE +0, 1: HUE +1, 2: HUE +2, 3: HUE +3]	2	2	2	2	2	2	2	2	2	2	2
19	MIDE	MID Enhancement setting table [0: Soft, ..., 63: Sharp]	3	10	15	20	25	30	35	40	45	50	55

			Game Mode										
		Depends on Signal Format and Picture Pallet	RF	CV/YC	Component				DTV				TWIN
					480i	480p	1080i	720p	480i	480p	1080i	720p	
0	SYSM	Bandwidth [0: NTSC, 1: FF, 2: HD, 3: DTV]	1	1	1	1	3	3	1	1	3	3	2
1	VMLV	VM level [0: VM0, 1: VM1, 2: VM2, 3: VM3, 4: VM4, 5: VM5, 6: VM6, 7: VM7]	7	7	7	7	7	7	7	7	7	7	7
2	VMMO	VM mode (VM_LEV) [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
3	VMCR	VM coring level [0: Off, 1: ±5%, 2: ±10%, 3: ±15%]	1	0	0	0	0	0	0	0	0	0	1
4	VMLM	VM limiter level [0: Off, 1: ±83%, 2: ±67%, 3: ±50%]	0	0	0	0	0	0	0	0	0	0	0
5	VMF0	VM f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	2	2	1	1	2	2	0
6	VMDL	VM delay [0: Short, 3: Long]	1	1	1	1	0	0	1	1	0	0	2
7	SHOF	Sharpness offset [0: 0step, 1: +4step, 2: +8step, 3: +12step]	2	2	2	0	2	3	0	0	2	3	0
8	SHF0	Sharpness f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	1
9	PROV	Pre-over ratio [0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1]	3	3	3	3	3	3	3	3	3	3	2
10	F1LV	Sharpness f1 [0: 0 dB, 1: +1 dB, 2: +2 dB, 3: +3 dB]	0	0	0	0	3	3	0	0	3	3	0
11	CDSP	Sharpness at color high [0: 0 dB, 1: +2 dB, 2: +4 dB, 3: +6 dB]	0	0	0	0	0	0	0	0	0	0	0
12	LTLV	LTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
13	LTMD	LTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	0
14	CTLV	CTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
15	CTMD	CTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
16	UBOF	User bright offset [0: BRIGHT +0, ..., 3: BRIGHT +6, ..., 7: BRIGHT +14]	3	3	5	5	7	6	7	7	7	6	2
17	UCOF	User color offset [0: COLOR +0, ..., 3: COLOR +6, ..., 7: COLOR +14]	0	0	0	0	0	0	0	0	0	0	0
18	UHOF	User hue offset [0: HUE +0, 1: HUE +1, 2: HUE +2, 3: HUE +3]	2	2	2	2	2	2	2	2	2	2	2
19	MIDE	MID Enhancement setting table [0: Soft, ..., 63: Sharp]	1	9	14	19	24	29	34	39	44	49	54

Video Processor (CXA2150)

Item		Function	Pro Mode										
No.	Name	Depends on Signal Format and Picture Pallet	RF	CV/YC	Component				DTV				TWIN
					480i	480p	1080i	720p	480i	480p	1080i	720p	
0	SYSM	Bandwidth [0: NTSC, 1: FF, 2: HD, 3: DTV]	1	1	1	1	3	3	1	1	3	3	2
1	VMLV	VM level [0: VM0, 1: VM1, 2: VM2, 3: VM3, 4: VM4, 5: VM5, 6: VM6, 7: VM7]	0	0	0	0	0	0	0	0	0	0	0
2	VMMO	VM mode (VM_LEV) [0: Off, 1: Low, 2: Mid, 3: High]	3	3	3	3	3	3	3	3	3	3	3
3	VMCR	VM coring level [0: Off, 1: ±5%, 2: ±10%, 3: ±15%]	1	0	0	0	0	0	0	0	0	0	1
4	VMLM	VM limiter level [0: Off, 1: ±83%, 2: ±67%, 3: ±50%]	0	0	0	0	0	0	0	0	0	0	0
5	VMF0	VM f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	2	2	1	1	2	2	0
6	VMDL	VM delay [0: Short, 3: Long]	1	1	1	1	0	0	1	1	0	0	2
7	SHOF	Sharpness offset [0: 0step, 1: +4step, 2: +8step, 3: +12step]	0	0	0	0	2	0	0	0	2	0	0
8	SHF0	Sharpness f0 [0: Low, 1: Mid, 2: High, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	1
9	PROV	Pre-over ratio [0: 1:1.5, 1: 1:1, 2: 1.5:1, 3: 2:1]	3	3	3	3	3	3	3	3	3	3	2
10	F1LV	Sharpness f1 [0: 0 dB, 1: +1 dB, 2: +2 dB, 3: +3 dB]	0	0	0	0	3	3	0	0	3	3	0
11	CDSP	Sharpness at color high [0: 0 dB, 1: +2 dB, 2: +4 dB, 3: +6 dB]	0	0	0	0	0	0	0	0	0	0	0
12	LTLV	LTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
13	LTMD	LTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	1	1	1	1	1	1	1	1	1	1	0
14	CTLV	CTI level [0: Off, 1: Low, 2: Mid, 3: High]	0	0	0	0	0	0	0	0	0	0	0
15	CTMD	CTI mode [0: for Black & White, 1: for Black, 2: for White, 3: Inhibit]	0	0	0	0	0	0	0	0	0	0	0
16	UBOF	User bright offset [0: BRIGHT +0, ..., 3: BRIGHT +6, ..., 7: BRIGHT +14]	6	6	3	3	3	3	3	3	3	3	4
17	UCOF	User color offset [0: COLOR +0, ..., 3: COLOR +6, ..., 7: COLOR +14]	0	0	0	0	0	0	0	0	0	0	0
18	UHOF	User hue offset [0: HUE +0, 1: HUE +1, 2: HUE +2, 3: HUE +3]	0	0	0	0	0	0	0	0	0	0	0
19	MIDE	MID Enhancement setting table [0: Soft, ..., 63: Sharp]	0	8	13	18	23	28	33	38	43	48	53

			Vivid	Standard	Movie	Game	Pro
20	TVVM	Initial VM level [0: VM Off, 1: VM Low, 2: VM Mid, 3: VM Highi]	3	3	1	3	0
21	VM_H	VM Highi level asignment [0: weak, ..., 7: strong]	7	7	6	7	6
22	VM_M	VM Mid level asignment [0: weak, ..., 7: strong]	5	5	4	5	4
23	VM_L	VM Low level asignment [0: weak, ..., 7: strong]	3	3	2	3	2

2150P-4

Video Processor (CXA2150)

Item No.	Item Name	Function

Depends on Signal Source

No.	Name	Function	Analog	Digital
0	SCON	Sub contrast adjustment [0: –1.2 dB, 7: 0 dB, 15: +1.5 dB]	9	4
1	SCOL	Sub color adjustment [0: –31 step, 31: 0step, 63: +32step]	30	32
2	SHUE	Sub hue adjustment [0: –31step, 31:0step, 63: +32step]	28	28

Depends on Source or Display Mode

No.	Name	Function	Analog: w/o 1080i	TWIN
3	SCNO	Sub contrast offset from angle [0: –7step, 7: 0step, 15: +8step]	7	7
4	SCLO	Sub color offset from angle [0: –7step, 7: 0step, 15: +8step]	7	7
5	SHUO	Sub hue offset from angle [0: –7step, 7: 0step, 15: +8step]	7	7

No.	Name	Function	Vivid	Standard	Movie	Game	Pro
6	UPIC	Initial picture gain [0: –15 dB, 63: 0 dB]	63	50	22	31	31
7	UBRT	Initial brightness [0: –15 IRE, 31: 0 IRE, 63: +15 IRE]	31	34	34	34	31
8	UCOL	Initial color [0: Color Off, 31: 0 dB, 63: +6 dB]	33	31	31	31	31
9	UHUE	Initial hue [0: –33 deg, 31: Center, 63: +33 deg]	31	31	31	31	31
10	USHP	Initial sharpness [0: –10 dB, 31: +2 dB, 63: +8 dB]	33	29	31	29	31
11	UTMP	Initial color temperature [0: Low, 1: Mid, 2: High, 3: Inhibit]	2	1	0	1	1
12	AXIS	Color axis [0: PJ, 1: PAL/SECAM, 2: NTSC-US, 3: NTSC-JP]	0	--	--	--	--

Depends on Signal Format and Picture Pallet

No.	Name	Function		Vivid	Standard	Movie	Game	Pro
13	GAMM	Initial gamma [0: Weak, 7: Strong] ; Upper 2 bit	**RF/CV/YC**	4	2	2	2	0
			480i	3	2	2	2	0
			480p	3	2	2	2	0
			1080i	4	2	2	2	0
			720p	4	2	2	2	0
			TWIN	4	2	0	2	0

Depends on Service Item "GAMM"

			GAMM (CXA2150P-4 13)							
No.	Name	Function	0	1	2	3	4	5	6	7
14	GSBO	Sub bright offset for gamma [0: 0step, 3: +3step]	0	0	0	0	0	0	0	0
15	GCCO	Sub color offset for gamma [0: 0step, 3: +3step]	0	0	0	0	0	0	0	0
16	GHUO	Sub hue offset for gamma [0: 0atep, 3: +3step]	0	0	0	0	0	0	0	0

Depends on Signal Format and Picture Pallet

No.	Name	Function		Vivid	Standard	Movie	Game	Pro
17	BLK	Black level [0: No Effect, 7: Max Enhance]	**RF/CV/YC**	6	4	0	4	0
			480i	7	4	0	4	0
			480p	7	4	0	4	0
			1080i	7	4	0	4	0
			720p	7	4	0	4	0
			TWIN	5	3	0	3	0

Depends on Service Item "BLK"

			BLK (CXA2150P-4 17)							
No.	Name	Function	0	1	2	3	4	5	6	7
18	DCTR	DC trancefer ratio [0: 103%, 1: 100%, 2: 93%, 3: 85%]	1	1	1	1	2	1	2	2
19	DPIC	Auto pedestal level [0: Off, 1: 30 IRE kneedown, 2: 35, 3: 40]	0	0	0	0	1	0	3	2
20	DSBO	Sub bright to offset or UBLK [0: –7step, 7: 0step, 15: +8step]	7	7	7	7	7	7	7	7
21	ABLM	ABL mode [0: PIC, 1: PIC & BRT-min, 2: PIC & BRT-mid, 3: PIC & BRT-max]	0	0	0	0	0	0	1	1

No.	Name	Function	Others	Small Pic
22	ABLT	Current detection Vth [0: Vth 0.8 V, 15: Vth 1.9 V]	0	8
23	ABLC	ABL level [0: Max ABL, 255: Min ABL]	0	0
24	SPOF	Picture offset for small area picture [0: 0step, 31: –(UPIC/63) x 31]	0	--

No.	Name	Function	RF/CV/YC	480i	480p	1080i	720p	TWIN
25	PIOF	Picture offset level	0	6	6	6	6	6
26	BROF	Brightness offset level	15	0	0	0	0	7
27	PICL	Maximum picture level	63	--	--	--	--	--
28	BRTL	Maximum brightness level	63	--	--	--	--	--

2150D-1

Deflection (CXA2150)

Item		Function	Wide Zoom	Zoom	Full / Index		Normal
No.	Name		960i	960i	960i	1080i	960i
0	VPOS	Vertical position	25				
1	VSIZ	Vertical size	50				
2	VSZO	V size off set	0	0	0	31	0
3	VLIN	Vertical linearity	5	5			
4	VSCO	Vertical s correction	8	8			
5	VCEN	Vertical centering	31				
6	VPIN	Vertical pin	15				15
7	NSCO	Rotation	7				
8	HTPZ	Horizontal trapezoid	15				
9	ZOOM	Zoom switch	1	1	0		
10	APSW	Aspect switch	0	0	0	0	0
11	ASPT	Aspect ratio	22	44	0	0	0
12	SCRL	Vertical scroll	29	29	29	29	29
13	UVLN	Upper vertical linearity	5	0	0		0
14	LVLN	Lower vertical linearity	5	0	0		0

2150D-2

Deflection (CXA2150)

Item		Function	Wide Zoom	Zoom	Full / Index		Normal
No.	Name		960i	960i	960i	1080i	960i
0	HCEN	Horizontal centering	35				
1	HPOS	Horizontal position	25	25			
2	HSIZ	Horizontal size	35	35			
3	SLIN	Horizontal s correction	0	0			
4	MPIN	Horizontal middle pin	0	0			
5	PIN	Horizontal pin	10	10			
6	PINO	Pin offset	7	7			
7	UCP	Upper corner pin	31	31			
8	LCP	Lower corner pin	31	31			
9	UXCG	Upper extra corner pin gain	0	0			
10	LXCG	Lower extra corner pin gain	0	0			
11	UXCP	Upper extra corner pin position	2	2			
12	LXCP	Lower extra corner pin position	2	2			
13	XCPP	Extra corner pin polarity	0	0			
14	PPHA	Pin phase	31	31			
15	VANG	AFC angle	31				
16	LANG	Linearity angle	32				
17	VBOW	AFC bow	31				
18	LBOW	Linearity bow	43				
19	CPY1	Copy function 1	0				

2150D-3

Deflection (CXA2150)

Item No.	Item Name	Function	Wide Zoom	Zoom	Full / Index		Normal
			960i	960i	960i	1080i	960i
0	HBLK	Horizontal blanking switch	1				
1	LBLK	Left blanking	56				
2	RBLK	Right blanking	25				
3	VBLK	Vertical blanking switch	0	0	1		1
4	TBLK	Top blanking	15	15	15	4	15
5	BBLK	Bottom blanking	15	15	15	5	15
6	VCMP	Vertical compensation	0	0	0	0	0
7	HCMP	Horizontal compensation	0	0	0	0	0
8	ACMP	AFC compensation	0	0	0		0
9	PCMP	Pin compensation	0	0	0		0
10	AFCM	AFC loop gain	3			1	3
11	VFRQ	Vertical frequency	1				
12	VON	Vertical drive on	1				
13	JUMP	Reference pulse jump switch	0				0
14	VDJP	Vertical drive jump switch	1	1	1	1	1
15	VDST	Vertical drive start switch	0	0	0	0	0
16	EWDC	Pin DC level shift			0		0
17	AKBT	AKB timing	9	9	9	9	9

CXA2151

Sync Selector (CXA2151)

Item No.	Item Name	Function				
		Depends on Signal Format	**1080i/720p**	**480p/480i**		
0	MTRX	Matrix [0: Through, 1: YPbPr (J), 2: YPbPr (U), 3: RGB]	1 *	0 *		* This data can't be memorized, it is controlled by M16C micro.
1	GAIN	Output gain for video [0: 6 dB ±2 dB, 1: 0 dB, 2/3: Mute]	0 *			
		Depens on Signal Input	**VIdeo5**	**Video6**	**Chroma Dec.**	
2	FIXS	Sync type [0: Auto Detect, 1: HS/VS, 2: CS, 3: SYNC on Y(G)]	0	0	0	
		Depends on Signal Format	**Analog 1080i**	**others**		
3	CBGN	Output gain for Cb [0: –2 dB, 7: 0 dB, 15: +2 dB]	7	7		
4	CRGN	Output gain for Cr [0: –2 dB, 7: 0 dB, 15: +2 dB]	8	8		
5	YGN	Output gain for Y [0: –2 dB, 7: 0 dB, 15: +2 dB]	8	8		
6	VTC	V sync sep. time constant [0: 6 µs, 3: 18 µs]	0	--		
		Depends on Signal Format	**1080i/720p**	**480p/480i**		
7	HTC	H sync sep. time constant [0: for HD, 1: for 45.75 kHz]	0 *	1 *		* This data can't be memorized, it is controlled by M16C micro.
8	HWID	H sync width [0: Through, 1: 1.4 µs, 2: 1.7 µs, 3: 3.7 µs]	1 *	--		
9	HSEP	Sync sep. type [0: Voltage Slice, 1: Charge/Dis-charge]	1 *	--		
		Depends on Signal Format	**1080i**	**720p/480p/480i**		
10	HMSK	H sync mask during V sync period [0: On, 1: Off]	0 *	1 *		* This data can't be memorized, it is controlled by M16C micro.
		Depens on Signal Input	**VIdeo5**	**Video6**	**Chroma Dec.**	
11	FRGB	Matrix = 3: RGB [0: Micro Control, 1: Forced RGB]	0	0	0	

MID5

MID Enhancement (CXD9509)

Item No.	Name	Function	
0	POP	Service data effect [0 – 63]	Same as "MIDE" (CXA2150P-3 19)

		Depends on Service Item "POP" (MID5 0)	0	1	2	3	4	5	6	7
		Applicable pallet and format :	Analog Tuner							
			Pro	Game		Movie		Standard		Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	2	3	2	2	2	2	2	2
2	MHLC	Main H LPF C coefficient code [0 - 3]	3	3	3	3	3	3	3	3
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	0	3	3	3	3
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	0	2	2	2	2
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	0	7	7	7	7
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	1	1	1
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	0	2	2	2	2
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	0	0	0	0	0
12	MHCO	Main H enhance C coefficient code [0, 1]	1	0	1	1	1	1	1	1
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	0	2	2	2	2
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	0	1	1	1	1
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	0	3	3	3	3
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	0	2	2	2	2
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	0	0	0	0	0

		Depends on Service Item "POP" (MID5 0)	8	9	10	11	12	13	14	15	16	17
		Applicable pallet and format :	Video 1 - 4					Video 5/6 480i				
			Pro	Game	Movie	Standard	Vivid	Pro	Game	Movie	Standard	Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	1	3	1	1	1	2	3	2	2	2
2	MHLC	Main H LPF C coefficient code [0 - 3]	3	3	3	3	3	3	3	3	3	3
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	2	2	0	0	0	1	2
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	2	2	0	0	0	2	2
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	4	7	0	0	0	2	2
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	2	2
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	0	0
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	0	0
12	MHCO	Main H enhance C coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	2	3	0	0	0	1	2
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	1	1
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	3	3	0	0	0	3	4
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	0	0
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	2	2
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	0	0

MID Enhancement (CXD9509)

Item No.	Item Name	Function										
		Depends on Service Item "POP" (MID5 0)	18	19	20	21	22	23	24	25	26	27
		Applicable pallet and format :	Video 5/6 480p					Video 5/6 1080i				
			Pro	Game	Movie	Standard	Vivid	Pro	Game	Movie	Standard	Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	1	3	1	1	1	2	3	2	2	2
2	MHLC	Main H LPF C coefficient code [0 - 3]	3	3	3	3	3	2	3	2	2	2
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	1	2	0	0	0	1	2
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	2	2	0	0	0	1	1
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	2	7	0	0	0	7	7
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	2	2
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	2	2
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	2	2
12	MHCO	Main H enhance C coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	1	2	0	0	0	1	2
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	1	1
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	5	5	0	0	0	2	5
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	2	2
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	1	1
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	2	3

		Depends on Service Item "POP" (MID5 0)	28	29	30	31	32	33	34	35	36	37
		Applicable pallet and format :	Video 5/6 720p					Digital 480i				
			Pro	Game	Movie	Standard	Vivid	Pro	Game	Movie	Standard	Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	0	3	0	0	0	1	3	1	1	1
2	MHLC	Main H LPF C coefficient code [0 - 3]	0	3	0	0	0	3	3	3	3	3
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	1	3	0	0	0	1	2
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	2	0
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	7	4	0	0	0	2	0
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	1	3	0	0	0	2	2
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	2	2	0	0	0	0	0
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	2	2	0	0	0	0	0
12	MHCO	Main H enhance C coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	1	3	0	0	0	1	1
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	1	1
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	4	3	0	0	0	3	4
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	1	3	0	0	0	2	2
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	1	1	0	0	0	0	0
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	4	3	0	0	0	0	0

MID Enhancement (CXD9509)

Item		Function										
No.	Name											
		Depends on Service Item "POP" (MID5 0)	38	39	40	41	42	43	44	45	46	47
		Applicable pallet and format :	Digital 480p					Digital 1080i				
			Pro	Game	Movie	Standard	Vivid	Pro	Game	Movie	Standard	Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	1	3	1	2	2	2	3	2	2	2
2	MHLC	Main H LPF C coefficient code [0 - 3]	3	3	3	3	3	2	3	2	2	2
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	1	2	0	0	0	1	2
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	2	2	0	0	0	1	1
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	2	7	0	0	0	7	7
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	1	0	1	1	1
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	2	2
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	7	0
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	0	0
12	MHCO	Main H enhance C coefficient code [0, 1]	0	0	1	1	1	1	0	1	1	1
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	1	3	0	0	0	1	2
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	1	1
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	5	3	0	0	0	2	5
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	2	2	0	0	0	2	2
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	0	0	0	0	0	0	0
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	0	0	0	0	0	0	0

		Depends on Service Item "POP" (MID5 0)	48	49	50	51	52	53	54	55	56	57
		Applicable pallet and format :	Digital 720p					TWIN				
			Pro	Game	Movie	Standard	Vivid	Pro	Game	Movie	Standard	Vivid
1	MHLY	Main H LPF Y coefficient code [0 - 3]	0	3	0	0	0	0	3	0	0	0
2	MHLC	Main H LPF C coefficient code [0 - 3]	0	3	0	0	0	0	3	0	0	0
3	MVLY	Main V LPF Y coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
4	MVLC	Main V LPF C coefficient code [0 - 3]	0	1	0	0	0	0	1	0	0	0
5	MHYR	Main H enhance Y coreing code [0 - 3]	0	0	0	1	3	0	0	0	0	0
6	MHYL	Main H enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	0	0
7	MHYE	Main H enhance Y level code [0 - 7]	0	0	0	7	4	0	0	0	0	0
8	MHYO	Main H enhance Y coefficient code [0, 1]	1	0	1	1	1	0	0	0	0	0
9	MHCR	Main H enhance C coreing code [0 - 3]	0	0	0	2	3	0	0	0	0	0
10	MHCL	Main H enhance C cliping code [0 - 3]	0	0	0	2	2	0	0	0	0	0
11	MHCE	Main H enhance C level code [0 - 7]	0	0	0	2	2	0	0	0	0	0
12	MHCO	Main H enhance C coefficient code [0, 1]	1	0	1	1	1	0	0	0	0	0
13	MVYR	Main V enhance Y coreing code [0 - 3]	0	0	0	1	3	0	0	0	0	0
14	MVYL	Main V enhance Y cliping code [0 - 3]	0	0	0	1	1	0	0	0	0	0
15	MVYE	Main V enhance Y level code [0 - 7]	0	0	0	4	3	0	0	0	0	0
16	MVCR	Main V enhance C coreing code [0 - 3]	0	0	0	1	3	0	0	0	0	0
17	MVCL	Main V enhance C cliping code [0 - 3]	0	0	0	1	1	0	0	0	0	0
18	MVCE	Main V enhance C level code [0 - 7]	0	0	0	4	3	0	0	0	0	0

MID Enhancement (CXD9509)

Item		Function	
No.	Name		
		Depends on Service Item "POP" (MID5 0)	0 - 63 (Same Data)
19	SHLY	Sub H LPF Y coefficient code [0 - 7]	0
20	SHLC	Sub H LPF C coefficient code [0 - 7]	0
21	SVLY	Sub V LPF Y coefficient code [0 - 7]	0
22	SVLC	Sub V LPF C coefficient code [0 - 7]	0
23	SHYR	Sub H enhance Y coreing code [0 - 3]	0
24	SHYL	Sub H enhance Y cliping code [0 - 3]	0
25	SHYE	Sub H enhance Y level code [0 - 7]	0
26	SHYO	Sub H enhance Y coefficient code [0, 1]	0
27	SHCR	Sub H enhance C coreing code [0 - 3]	0
28	SHCL	Sub H enhance C cliping code [0 - 3]	0
29	SHCE	Sub H enhance C level code [0 - 7]	0
30	SHCO	Sub H enhance C coefficient code [0, 1]	0
31	SVYR	Sub V enhance Y coreing code [0 - 3]	0
32	SVYL	Sub V enhance Y cliping code [0 - 3]	0
33	SVYE	Sub V enhance Y level code [0 - 7]	0
34	SVCR	Sub V enhance C coreing code [0 - 3]	0
35	SVCL	Sub V enhance C cliping code [0 - 3]	0
36	SVCE	Sub V enhance C level code [0 - 7]	0

CXA3506R

A/D Converter (CXA3506)

Item		Function		
No.	Name			
			1080i/720p/480p	480i (sub)
0	MCON	Main contrast [0 - 255]	64	64
1	SCOR	Sub contrast Y [0 - 255]	108	113
2	SCOG	Sub contrast Cb [0 - 255]	155	150
3	SCOB	Sub contrast Cr [0 - 255]	153	153
4	RGB	RGB out select [0, 1]	0	0

TDA7312F

Audio Processor (TDA7312-F)

Item		Function	
No.	Name		
			Common
0	SBAS	Sub bass control	7
1	STRE	Sub treble	7

TDA7312R

Audio Processor (TDA7312-R)

Item		Function	
No.	Name		
			Common
0	SBAS	Sub bass control	7
1	STRE	Sub treble	7

TDA7312C

Audio Processor (TDA7312-C)

Item		Function	
No.	Name		
			Common
0	SBAS	Sub bass control	7
1	STRE	Sub treble	7

SNNR

SNNR

Item No.	Item Name	Function	Common
0	SNNR	SNNR data label	*1
1	SNFX	[0: SNNR is controlled by Micro, 1: SNNR controled by service]	0 *2

*1 Data is controlled by M16C Micro
*2 Normally "0"

Sets the Threshold for SNNR

Item No.	Item Name	Function	A	B	C	D	E	F	G
2	WSLT	Threshold of SNNR	15	31	45	63	85	127	180

To choose the SNNR level the following equations apply

Condition	Selection
0 <= WSL < WSLT (A)	Select SNNR (0)
WSLT (A) <= WSL < WSLT (B)	Select SNNR (1)
WSLT (B) <= WSL < WSLT (C)	Select SNNR (2)
WSLT (C) <= WSL < WSLT (D)	Select SNNR (3)
WSLT (D) <= WSL < WSLT (E)	Select SNNR (4)
WSLT (E) <= WSL < WSLT (F)	Select SNNR (5)
WSLT (F) <= WSL < WSLT (G)	Select SNNR (6)
WSLT (G) <= WSL < 255	Select SNNR (7)

SNNR Offset Data

Item No.	Item Name	Function	0	1	2	3	4	5	6	7
3	CPFG	µPD64082: YPFG (–Offset Data)	0	0	1	1	1	1	2	2
4	CPFT	µPD64082: YPFT (–Offset Data)	0	0	2	2	2	3	3	3
5	CCOR	µPD64082: YHCOR (–Offset Data)	3	3	3	3	3	3	3	3
6	CHCG	µPD64082: YHCGAIN (–Offset Data)	1	1	1	1	1	1	1	1
7	CAPG	µPD64082: YAPGAIN (–Offset Data)	0	0	0	0	0	0	0	0
8	3SHP	CXA2103-M: SHAP (–Offset Data)	0	1	1	2	2	2	2	3
9	5SHP	CXA2150P-4: USHP (–Offset Data)	0	0	2	2	3	4	4	4
10	5YF1	CXA2150P-3: F1LV (–Offset Data)	0	0	1	1	2	2	2	3
11	5CDS	CXA2150P-3: CDSP (–Offset Data)	0	2	2	2	2	2	2	2
12	5LTI	CXA2150P-3: LTLV (–Offset Data)	0	0	0	0	0	0	0	0
13	5CTI	CXA2150P-3: CTLV (–Offset Data)	0	0	0	0	0	0	0	0
14	5VML	CXA2150P-3: UVML (–Offset Data)	0	0	0	0	0	0	0	0
15	5VMC	CXA2150P-3: VMCR (–Offset Data)	0	1	1	1	2	2	2	2
16	MIDD	CXA2150P-3: MID offset for SN (–Offset Data)	0	0	0	0	0	0	0	0

SNNR (0) uses no Offset Data
SNNR (1) uses Offset Data (0)
SNNR (2) uses Offset Data (1)
SNNR (3) uses Offset Data (2)
SNNR (4) uses Offset Data (3)
SNNR (5) uses Offset Data (4)
SNNR (6) uses Offset Data (5)
SNNR (7) uses Offset Data (6)

TP

Model Type

Item No.	Item Name	Function	Common
0	MODL	Model category [0: HA3, 1: RA5A]	1

PJE

NVM list (PJ Engine)

Item		Function	Data Range	Normal	Zoom	Wide Zoom	HD
No.	Name						
00	FDIS	Swith of display for fine adjustment data	00, 01	–			
01	COPY	Service copy adjustment	00, 01	–			
02	ALCP	Service all copy adjustment	00, 01	–			
03	OSDH	OSD horizontal position of PJED service menu	01 - 255	22			
04	OSDV	OSD vertical position of PJED service menu	01 - 255	100	120	100	60
05	FVSL	Start position of fine adjustment	00 - 15	00	14	15	00
06	FVSP	Start line of fine adjustment	00 - 255	03	21	25	53
07	V1DL	Value of V1 delay	00 - 255	01	139	60	01
08	V1CU	Value of V1 count up	000 - 4095	454	598	506	387
09	V1OH	Value of V1 offset upper data	00 - 255	05	05	05	79
10	V1OL	Value of V1 offset lower data	00 - 255	00	00	00	00
11	OEVP	Odd/Even select position	000 - 4095	1056			
12	COHP	Horizontal phase for rough adjustment	000 - 4095	000			
13	34CS	Start center clamp position of H3 and H4 pulse	00 - 31	14			
14	34CW	Width center clamp position of H3 and H4 pulse	00 - 31	00			
15	FIHP	Horizontal phase for fine adjustment	000 - 4095	1104			
16	TPHP	Horizontal phase for test pattern	000 - 4095	069			
17	TPVP	Vertical phase for test pattern	00 - 255	55	111	79	15
18	DFHP	Horizontal phase for dynamic focus	000 - 4095	200			
19	DFHG	Value of horizontal parabola wave for dynamic focus	–128 - 127	–90	–90	–90	–90
20	DFVG	Value of vertical parabola wave for dynamic focus	–128 - 127	–60	–60	–60	–60
21	DFDC	Value of center for dynamic focus	–128 - 127	127	127	127	127
22	DFV1	Value of V1 saw wave for dynamic focus	–128 - 127	–50	–50	–50	–50
23	SDHP	Compensation of horizontal phase for shading	000 - 4095	501			
24	SDH1	Value of horizontal saw wave for dynamic focus	–128 - 127	–128	–128	–128	–128
25	RVCS	Start position of Red vertical clamp	00 - 31	00			
26	RVCW	Width of Red vertical clamp	00 - 31	00			
27	GVCS	Start position of Green vertical clamp	00 - 31	00			
28	GVCW	Width of Green vertical clamp	00 - 31	00			
29	BVCS	Start position of Blue vertical clamp	00 - 31	00			
30	BVCW	Width of Blue vertical clamp	00 - 31	00			
31	RHCS	Start of position Red horizontal clamp	00 - 31	00			
32	RHCW	Width of Red horizontal clamp	00 - 31	00			
33	GHCS	Start position of Green horizontal clamp	00 - 31	00			
34	GHCW	Width of Green horizontal clamp	00 - 31	00			
35	BHCS	Start position of Blue horizontal clamp	00 - 31	00			
36	BHCW	Width of Blue horizontal clamp	00 - 31	00			
37	BDVU	Vertical position for boder line 1	000 - 2047	023	018	012	049
38	BDVL	Vertical position for boder line 2	000 - 2047	905	686	820	1039
39	BDHL	Horizontal position for boder line 1	000 - 2047	148			
40	BDHR	Horizontal position for boder line 2	000 - 2047	1262			
41	HBLD	Horizontal phase for output of H. Blank out	000 - 4095	000			
42	HBLW	Width for output of H. Blank out	000 - 4095	000			
43	PWM2	PWM2 output width setting of Regi. IC	000 - 4095	730 (57 inch), 600 (65 inch)			
44	COGV	Green vertical center offset data for Auto Regi.	–128 - 127	–			
45	CORV	Red vertical center offset data for Auto Regi.	–128 - 127	–			
46	COBV	Blue vertical center offset data for Auto Regi.	–128 - 127	–			
47	COGH	Green horizontal center offset data for Auto Regi.	–128 - 127	–			
48	CORH	Red horizontal center offset data for Auto Regi.	–128 - 127	–			
49	COBH	Blue horizontal center offset data for Auto Regi.	–128 - 127	–			
50	SOGV	Green vertical skew offset data for Auto Regi.	–128 - 127	–			
51	SORV	Red vertical skew offset data for Auto Regi.	–128 - 127	–			
52	SOBV	Blue vertical skew offset data for Auto Regi.	–128 - 127	–			
53	SOGH	Green horizontal skew offset data for Auto Regi.	–128 - 127	–			
54	SORH	Red horizontal skew offset data for Auto Regi.	–128 - 127	–			

NVM list (PJ Engine)

Item		Function	Data Range	Normal	Zoom	Wide Zoom	HD
No.	Name						
55	SOBH	Blue horizontal skew offset data for Auto Regi.	–128 - 127	–			
56	ZOGH	Green horizontal size offset data for Auto Regi.	–128 - 127	–			
57	ZORH	Red horizontal size offset data for Auto Regi.	–128 - 127	–			
58	ZOBH	Blue horizontal size offset data for Auto Regi.	–128 - 127	–			
59	LOGH	Green horizontal linearity offset data for Auto Regi.	–128 - 127	–			
60	LORH	Red horizontal linearity offset data for Auto Regi.	–128 - 127	–			
61	LOBH	Blue horizontal linearity offset data for Auto Regi.	–128 - 127	–			
62	ERR	Auto Regi. Error code	000 - xxx	–			
63	ADTM	A/D data input timing of Auto Regi.	00 - 127	134 (57 inch), 134 (65 inch)			
64	VUP	Auto Regi. pattern upper vertical position	000 - 2047	048 (57 inch), 048 (65 inch)			
65	VUPM	Auto Regi. pattern upper middle vertical position	000 - 2047	000			
66	VMID	Auto Regi. pattern middle vertical position	000 - 2047	515 (57 inch), 515 (65 inch)			
67	VLOM	Auto Regi. pattern lower middle vertical position	000 - 2047	000			
68	VLOW	Auto Regi. pattern lower vertical position	000 - 2047	980 (57 inch), 980 (65 inch)			
69	HLE	Auto Regi. pattern left horizontal position	000 - 4095	072 (57 inch), 072 (65inch)			
70	HLEM	Auto Regi. pattern left middle horizontal position	000 - 4095	000			
71	HMID	Auto Regi. pattern middle horizontal position	000 - 4095	655 (57 inch), 655 (65 inch)			
72	HRIM	Auto Regi. pattern right middle horizontal position	000 - 4095	000			
73	HRIV	Auto Regi pattern right horizontal position	000 - 4095	1232 (57 inch), 1232 (65 inch)			
74	SFTF	Swith of shift fast	000, 001	000			
75	ACTL	Acount timer counter lower byte	000 - xxx	000			
76	ACTH	Acount timer counter upper byte	000 - xx	000			
77	SLSW	Auto Regi. adjustment item select	000 - 003	003 (57 inch), 003 (65 inch)			
GRN	CENT	Green Horizontal / Vertical center	–512 - 511	35 / 20			
	SKEW	Green Horizontal / Vertical skew	–512 - 511	000 / 000			
	SIZE	Green Horizontal / Vertical size	–512 - 511	–100 / –075			
	LIN	Green Horizontal / Vertical linearity	–512 - 511	000 / 000			
	KEY	Green Vertical keystone	–512 - 511	xxxx / 000			
	PIN	Green Horizontal pincushion	–512 - 511	000 / 400			
	MLIN	Green Horizontal mid linearity	–512 - 511	000 / xxxx			
	MSIZ	Green Horizontal mid size	–512 - 511	–200 / xxxx			
BLU	CENT	Blue Horizontal / Vertical center	–512 - 511	35 / 20			
	SKEW	Blue Horizontal / Vertical skew	–512 - 511	000 / 000			
	SIZE	Blue Horizontal / Vertical size	–512 - 511	–100 / –075			
	LIN	Blue Horizontal / Vertical linearity	–512 - 511	–425 / 000			
	KEY	Blue Vertical keystone	–512 - 511	xxxx / –120			
	PIN	Blue Horizontal pincushion	–512 - 511	000 / 350			
	MLIN	Blue Horizontal mid linearity	–512 - 511	150 / xxxx			
	MSIZ	Blue Horizontal mid size	–512 - 511	–100 / xxxx			
RED	CENT	Red Horizontal / Vertical center	–512 - 511	35 / 20			
	SKEW	Red Horizontal / Vertical skew	–512 - 511	000 / 000			
	SIZE	Red Horizontal / Vertical size	–512 - 511	–100 / –075			
	LIN	Red Horizontal / Vertical linearity	–512 - 511	425 / 000			
	KEY	Red Vertical keystone	–512 - 511	xxxx / 120			
	PIN	Red Horizontal pincushion	–512 - 511	000 / 350			
	MLIN	Red Horizontal mid linearity	–512 - 511	–150 / xxxx			
	MSIZ	Red Horizontal mid size	–512 - 511	–100 / xxxx			

OP

Model Option

Item		Function	Common
No.	Name		
0	DLY1	Delay time 1 of power on segment	10
1	DLY2	Delay time 2 of power on segment	18
2	DLY3	Delay time 3 of power on segment	0
3	AGCA	AGC ATT level	255
4	OSDH	OSD H position [0: Left, 254: Right]	8
5	HDPT	HD (1080i) pass through switch [0: Pass through, 1: MID out]	1
6	DRST	DTV box auto reset function [0: Off, 1: On]	1
7	RAMW	RAM window display [0: Off, 1: Display]	0

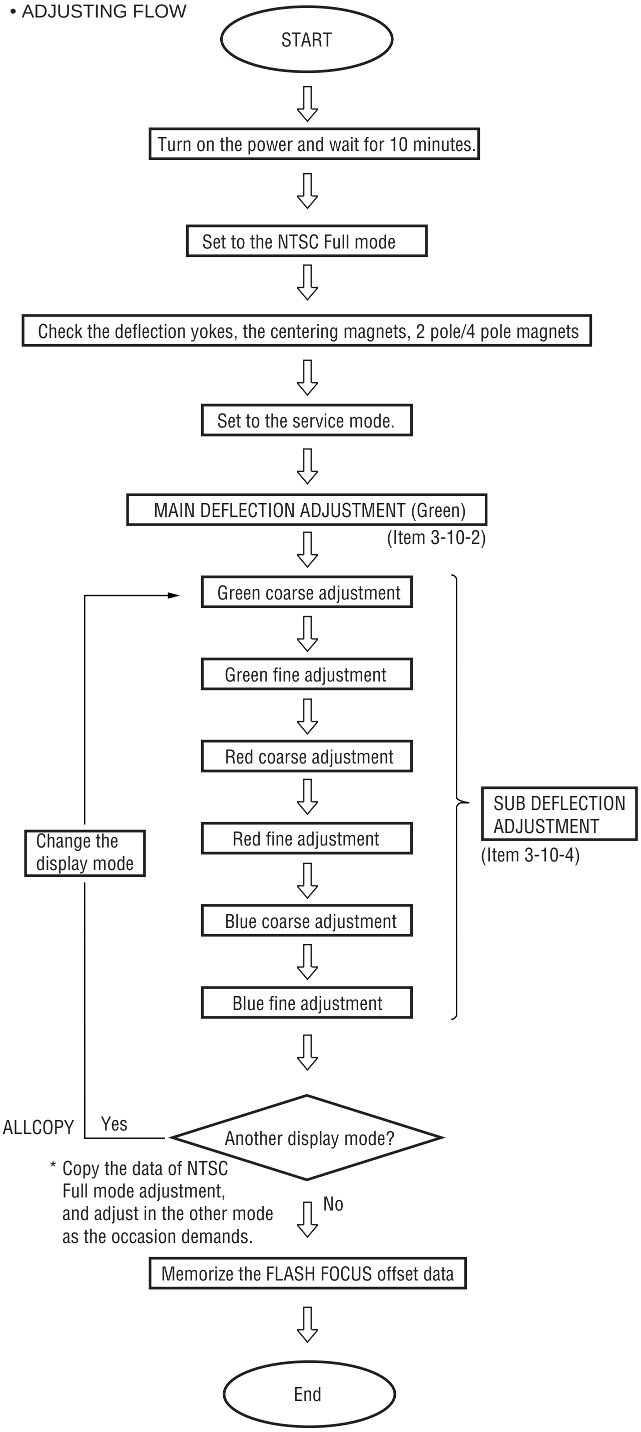
ID

Model ID

Item		Function	Common
No.	Name		
0	ID0	Language/System	89
1	ID1	Video input	255
2	ID2	Audio	119
3	ID3	etc. 1	106
4	ID4	etc. 2	75
5	ID5	etc. 3	161
6	ID6	Sub picture	62
7	ID7	etc. 4	30

3-11. REGISTRATION ADJUSTMENT

• ADJUSTING FLOW

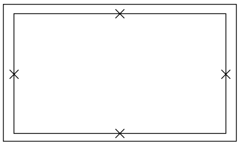

START
Turn on the power and wait for 10 minutes.
Set to the NTSC Full mode
Check the deflection yokes, the centering magnets, 2 pole/4 pole magnets
Set to the service mode.
MAIN DEFLECTION ADJUSTMENT (Green)
(Item 3-10-2)
Green coarse adjustment
Green fine adjustment
Red coarse adjustment
Red fine adjustment
Blue coarse adjustment
Blue fine adjustment
SUB DEFLECTION ADJUSTMENT
(Item 3-10-4)
Change the display mode
ALLCOPY
Yes
Another display mode?
* Copy the data of NTSC Full mode adjustment, and adjust in the other mode as the occasion demands.
No
Memorize the FLASH FOCUS offset data
End

3-11-1. Setup for Adjustment

1. Marking

1) At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.

2. Data Setting



1) Set NTSC Full mode.
2) Enter the Service mode, and select “PJE”.

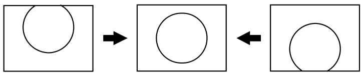
Note : When you replaced printed circuit boards or devices or CRTs, and when correction is drastically necessary, press “⑦” + “ENTER” buttons to initialize the data in the Projector Engine mode.
Press “MUTING” + “ENTER” buttons on the commander to write the data.

3-11-2. Main Deflection Adjustment

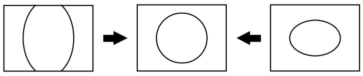
Note : Before this adjustment, input the data of PJE item GRN, RED and BLU (See page 39).

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the monoscope signal and set to NTSC Full mode .
3. Enter the Service mode, and select “2150D-1” .
4. Adjust “0 VPOS” and “1 VSIZ” so that the picture is displayed in the center of screen.

0 VPOS



1 VSIZ

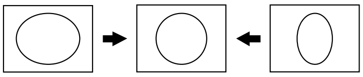


5. Select “2150D-2” and adjust “2 HSIZ” so that the picture size is within the specification.

SPEC — Overscan Spec. = 9%

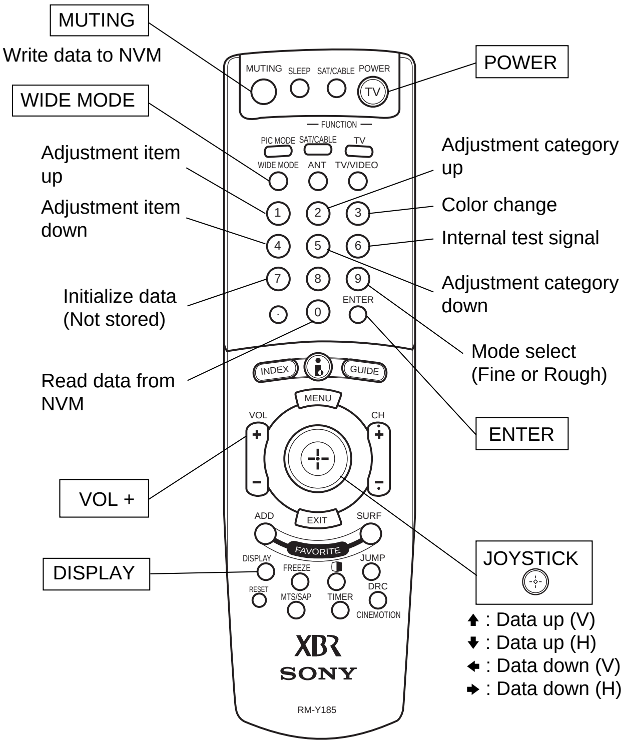
Input Signal	H SIZE	V SIZE
Monoscope	15.5 ± 0.2 sq.	11.6 ± 0.2 sq.

2 HSIZ



6. Copy the dada of NTSC Full mode to the other display mode and adjust in the other mode as the occasion demands.

3-11-3. Operation Method for Projector Engine Mode


MUTING
Write data to NVM
WIDE MODE
Adjustment item up
Adjustment item down
Initialize data (Not stored)
Read data from NVM
VOL +
DISPLAY
POWER
Adjustment category up
Color change
Internal test signal
Adjustment category down
Mode select (Fine or Rough)
ENTER
JOYSTICK
↑ : Data up (V)
↓ : Data up (H)
← : Data down (V)
→ : Data down (H)
MUTING SLEEP SAT/CABLE POWER
TV
FUNCTION
PIC MODE SAT/CABLE TV
WIDE MODE ANT TV/VIDEO
1 2 3
4 5 6
7 8 9
ENTER
0
INDEX GUIDE
MENU
VOL CH
ADD EXIT SURF
FAVORITE
DISPLAY FREEZE JUMP
RESET MTS/SAP TIMER DRC
CINEMOTION
XBR
SONY
RM-Y185

RM-Y185

1. Functions of Keys on Commander

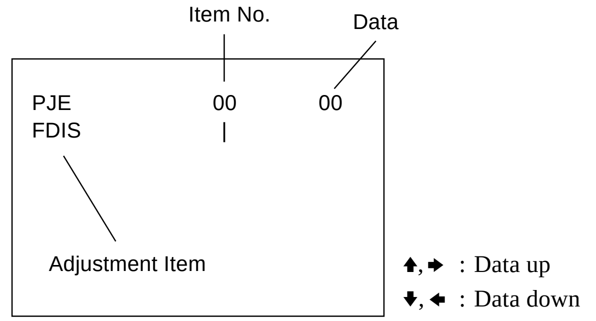
- ① : Changes adjustment item. (item No. moves up)
  : Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
  : Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ② : Changes adjustment category. (category moves up)
- ⑤ : Changes adjustment category. (category moves down)º
- ↑ ↓ ← → : Changes data value.
  : Marker moves up, down, or to the left or right. (in fine adjustment mode)
- ③ : Changes adjustment color. (except item No. 00~77) GRN → BLU → RED
- ⑥ : Displays or changes internal test signals.
  : crosshatch + external signal → crosshatch + borderline → crosshatch only → dot only → off
- ⑨ : Switches adjustment mode. rough adjustment mode → fine adjustment mode
- ⊕ (push) : Switches marker moving method. (in fine adjustment mode) joystick key → ① and ④ buttons

Commander Function

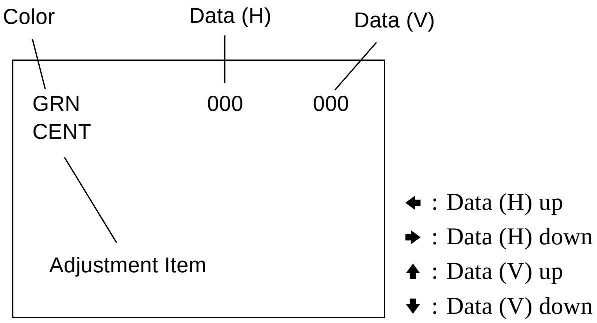
Button	Mode	Description
MUTING + ENTER	WRITE	Writes data to NVM.
⓪ + ENTER	READ	Reads data from NVM.
⑦ + ENTER	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)

2. Operation Method for Rough Adjustment

1) Set in the service mode, and select the category “PJE”.
2) Press “①” or “④” button on the commander to select the item, and move the joystick ↑, ↓, ←, → to change the data.


Item No.
Data
PJE
FDIS
00
00
Adjustment Item
↑, → : Data up
↓, ← : Data down

3) Select “GRN CENT” . When BLU or RED is displayed, press “③” button on the commander to change the adjustment color in the order of GRN → BLU → RED.
4) In the GRN, BLU, or RED mode, moving the joystick ↑, ↓ can change the data in vertical direction, or ←, → in horizontal direction.

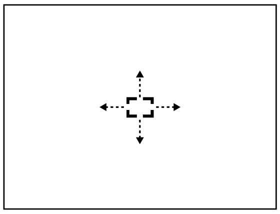

Color
Data (H)
Data (V)
GRN
CENT
000
000
Adjustment Item
← : Data (H) up
→ : Data (H) down
↑ : Data (V) up
↓ : Data (V) down

5) Before returning to the Service mode, press “MUTING” +“ENTER” buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)

3. Operation Method for Fine Adjustment

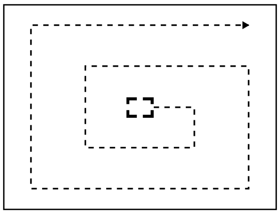
1) Set in the service mode and select the category “PJE”.
2) Select “00 FDIS” so that the data at each position can be displayed in the fine adjustment mode, and set the data to “01”.
3) Press “⑨” button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
4) Press “⊕” button on the commander, and the marker color will be switched between green (GRN mode) and white alternately.
5) Use “①” or “④” button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

- When marker color is white.
  (in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

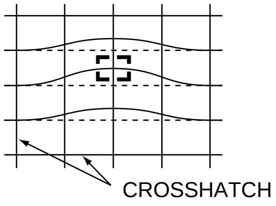
- When marker color is green. (GRN mode)



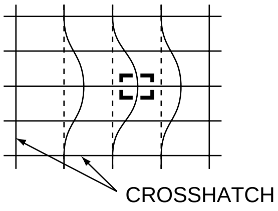
① : moves the marker clockwise from center to outside.
④ : moves the marker counterclockwise from outside to center.

- Fine adjustment can be made on the basis of marker position by moving the joystick ↑, ↓, ←, →.

Movement when moving the joystick ↑.



Movement when moving the joystic →.



6) Press “⑨” button on the commander to return to the rough adjustment mode.

3-11-4. Projector Engine Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes – : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○ / –
MSIZ	○ / –	○ / –	○ / –

Note: If the value of over the limit value, adjust these in the fine adjustment .

< Rough Adjustment Data Limit Valune >

CENT	H : 35±170	V : 20±170
SIZE	H : –75max	
LIN	H BLU : –425min	
	H RED : 425max	

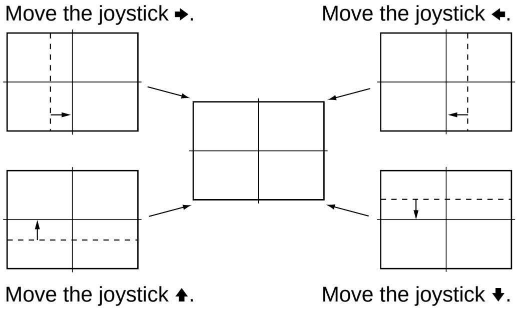
<Adjustment for NTSC Full Screen Mode>

The adjustment should be done in the numerical order given.

1. Green Adjustment

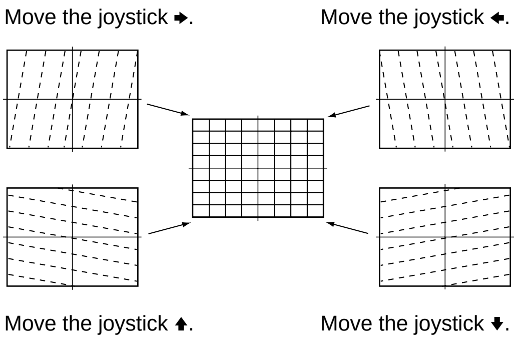
1) Place the caps on the red and blue lenses so that only the green color is displayed.
2) Enter the monoscope signal to set.
3) Select the “PJE” mode.
4) Press “⑥” button on the commander to display internal test signal (crosshatch).
5) Select “GRN CENT”, and adjust so that the picture coincide in the center of screen.

- GRN CENT (horizontally/vertically)



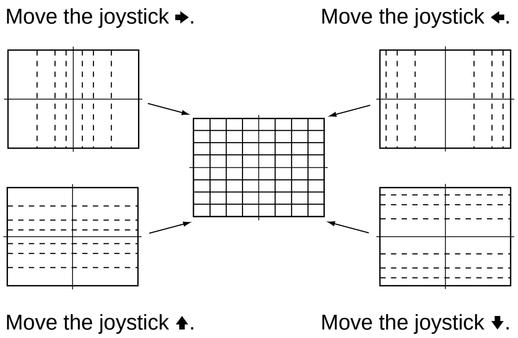
6) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

- GRN SKEW (horizontally/vertically)


Move the joystick →.
Move the joystick ←.
Move the joystick ↑.
Move the joystick ↓.

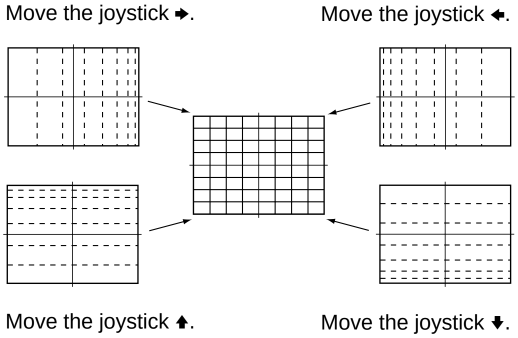
7) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

- GRN SIZE (horizontally/vertically)


Move the joystick →.
Move the joystick ←.
Move the joystick ↑.
Move the joystick ↓.

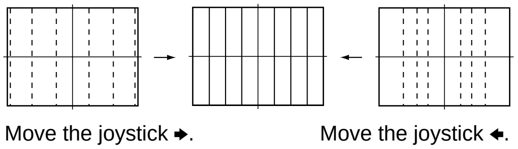
8) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

- GRN LIN (horizontally/vertically)


Move the joystick →.
Move the joystick ←.
Move the joystick ↑.
Move the joystick ↓.

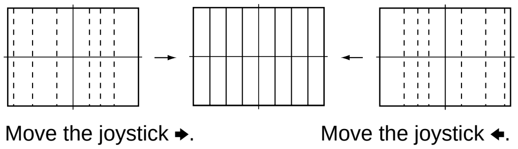
9) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

- GRN MSIZ (horizontally)


Move the joystick →.
Move the joystick ←.

10) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

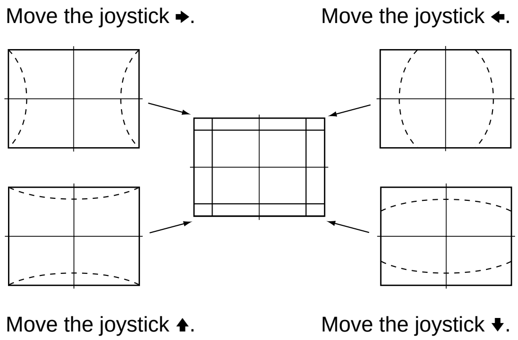
- GRN MLIN (horizontally)


Move the joystick →.
Move the joystick ←.

Note: The SIZE and LIN, MSIZ and MLIN adjustments are affected each other.
So adjust these mutually if necessary.

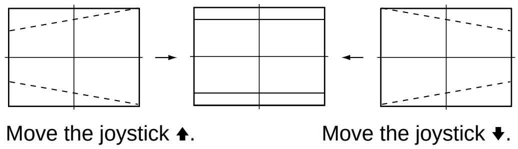
11) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

- GRN PIN (horizontally/vertically)


Move the joystick →.
Move the joystick ←.
Move the joystick ↑.
Move the joystick ↓.

12) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

- GRN KEY (vertically)


Move the joystick ↑.
Move the joystick ↓.

Note: The VPINand KEY adjustments are affected each other.
So adjust these mutually if necessary.

13) Press “⑨” button on the commander to enter the fine adjustment mode.
14) Make fine adjustment so that horizontal lines and vertical lines become straight.
15) Press “⑨” button on the commander to return to the rough adjustment mode.

2. Red Adjustment

1) Place a cap on the blue lens so that green and red colors are displayed.
2) Press “③” button on the commander to select RED mode.
3) Adjust the following items so that red lines overlap with green lines.

- RED CENT (horizontally/vertically)
- RED SKEW (horizontally/vertically)
- RED SIZE (horizontally/vertically)
- RED LIN (horizontally/vertically)
- RED MSIZ (horizontally)
- RED MLIN (horizontally)
- RED PIN (horizontally/vertically)
- RED KEY (vertically)

4) Press “⑨” button on the commander to enter the fine adjustment mode.
5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
6) Press “⑨” button on the commander to return to the coarse adjustment mode.

3. Blue Adjustment

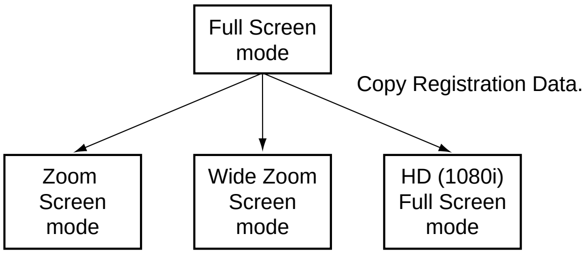
1) All colors are displayed.
2) Press “③” button on the commander to select BLU mode.
3) Hereinafter, use same manner as that of red adjustment to adjust so that the blue lines overlap with green and red lines.

4. Registration Data Writing

1) After each adjustment of green, blue, and red for the NTSC Full mode finished, press “MUTING”+ “ENTER” buttons on the commander to write registration data to the NVM.

<Copy All Registration Data to Other modes>

1. Make sure that the adjustment for NTSC Full mode finished and the data have already been written.
2. Select the “PJE” mode.
3. Select “02 ALCP” and set the data to “01”, and press “MUTING”+“ENTER” buttons on the commander.
4. The data of NTSC Full mode are copied to all other modes.



5. Check in the other mode and adjust as the occasion demands. Be sure to write data in each mode.

3-12. AUTO REGISTRATION OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the monoscope signal to set the NTSC Full mode.
3. Select the PJE mode.
4. Press “FLASH FOCUS” button on the front panel of the set. (The offset value is now automatically stored)
5. Select “ ERR” of PJE mode. Confirm ERR is “000”. If ERR is not “000”, recheck. (Refer to 3-13.)
6. Exit the service mode.

3-13. AUTO REGISTRATION ERROR CODE LIST

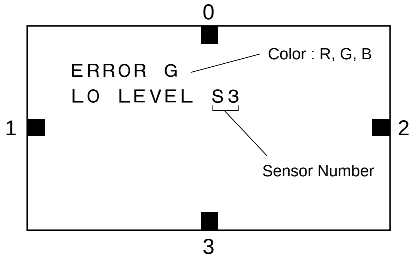
If an error code is displayed after the set has been fully adjusted, correctly, plese check the following items : position, tilt and sizing. If either of these adjustments are off, even slightli, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, circuit, and pattern position
		(Are patterns hitting sensor ?) Adjust “64 VUP” if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, circuit, and pattern position
		(Are patterns hitting sensor ?) Adjust “69 HLE” if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, circuit, and pattern position
		(Are patterns hitting sensor ?) Adjust “73 HRIV” if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, circuit, and pattern position
		(Are patterns hitting sensor ?) Adjust “68 VLOW” if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check “66 VMID” data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check “71 HMID” data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check “69 HLE” and “73 HRIV” data and check registration condition.
40	V CENT regi data overflow	Check “66 VMID” data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm V CENT data (all mode) is not near 511.
50	V CENT regi data overdrow	Check “66 VMID” data and confirm V CENT data (all mode) is not near –512.
51	H CENT regi data overdrow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
52	V SKEW regi data overdrow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near –512.
53	H SKEW regi data overdrow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near –512.
54	H LIN regi data overdrow	Check “69 HLE” and “73 HRIV” data and confirm H CENT data (all mode) is not near –512.
55	H SIZE regi data overdrow	Check “69 HLE” and “73 HRIV” data and confirm V CENT data (all mode) is not near –512.
60	H or V CENT offset overflow	Check “71 HMID” data and check “66 VMID” data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check “69 HLE” and “73 HRIV” data and check SIZE and LIN adjustment.
70	H or V CENT offset overdrow	Check “71 HMID” data and check “66 VMID” data.
71	H or V SKEW offset overdrow	Check SKEW adjustment.
72	H SIZE or LIN offset overdrow	Check “69 HLE” and “73 HRIV” data and check SIZE and LIN adjustment.
80	Size limit error	Check that H SIZE data is negative and not near 0.

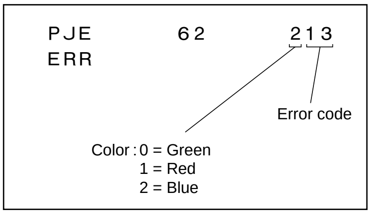
[Error Code Screen Display]

- When executing flash focus in service mode, the error will be displayed in text format.
  (Example : Green Low Level Sensor 3)



0 : Upper Sensor
1 : Left Sensor
2 : Right Sensor
3 : Lower Sensor

- Error codes in normal (customer) mode are not displayed. You must enter PJE service mode to see the error code.
  (Example : Blue Low Level Sensor 3)



SECTION 4
CIRCUIT ADJUSTMENTS

4-1. 480p Y, PB, PR GAIN ADJUSTMENT

1. Receive the 100 % color bar (480p, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Level : 700 ±10 mVp-p)
2. Connect the oscilloscope between CN005 Ⓐ1 pin (V_MIDI_Y), Ⓐ2 pin (V_MIDI_PB), Ⓐ3 pin (V_MIDI_PR) on the B board and ground.
3. Set in the service mode and select the category “CXA2151”.
4. Adjust “5 YGN” , “3 CBGN” and “4 CRGN” so that the waveform level is 1.400 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

A = 1.400 ±0.035 Vp-p

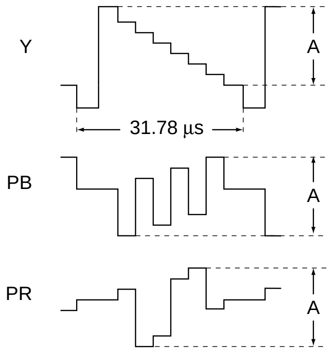


Fig. 4-1

4-2. MAIN Y/C LEVEL ADJUSTMENT (FOR THE DRC PATH)

1. Receive the 100 % color bar (480i, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Level Y : 714±10 mVp-p, PB, PR : 700±10 mVp-p)
2. Connect the oscilloscope between CN005 Ⓐ5 pin (V_DRCI_Y), Ⓐ6 pin (V_DRCI_PB) on the B board and ground.
3. Set in the service mode and select the category “2103-1”.
4. Adjust “0 YLEV” and “1 CLEV” so that the waveform levels are 1.400 ±0.015 Vp-p and 1.490 ±0.015 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

A = 1.400 ±0.015 Vp-p
B = 1.490 ±0.015 Vp-p

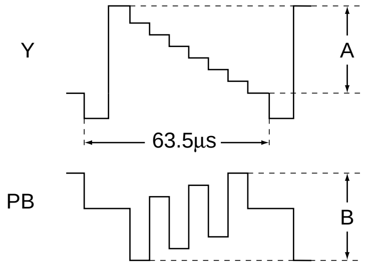


Fig. 4-2

4-3. MAIN Y/C LEVEL ADJUSTMENT (FOR THE VDO PATH)

1. Receive the 100 % color bar (480i, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Level Y : 714±10 mVp-p, PB, PR : 700±10 mVp-p)
2. Connect CN005 Ⓐ9 pin (MN_SB_SW) on the B board to 5 V.
3. Connect the oscilloscope between CN005 Ⓐ1 pin (V_MIDI_Y), Ⓐ2 pin (V_MIDI_PB) on the B board and ground.
4. Set in the service mode and select the category “2103-1”.
5. Adjust “0 YLEV” and “1 CLEV” so that the waveform levels are 1.400 ±0.015 Vp-p.
6. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

A = 1.400 ±0.015 Vp-p

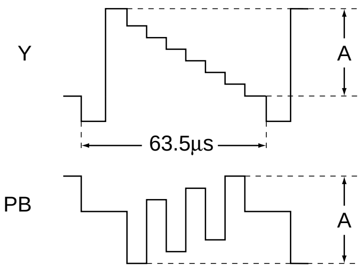


Fig. 4-3

4-4. SUB Y/C LEVEL ADJUSTMENT (FOR THE DRC PATH)

1. Receive the 100 % color bar (480i, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Level Y : 714 ±10 mVp-p, PB,PR : 700 ±10 mVp-p)
2. Connect CN005 (A9) pin (MN_SB_SW) on the B board to 5 V.
3. Connect the oscilloscope between CN005 (A5) pin (V_DRCI_Y), (A6) pin (V_DRCI_PB) on the B board and ground.
4. Set in the service mode and select the category “2103-2”.
5. Adjust “0 YLEV” and “1 CLEV” so that the waveform levels are 1.400 ±0.015 Vp-p and 1.490 ±0.015 Vp-p.
6. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

A = 1.400 ±0.015 Vp-p
B = 1.490 ±0.015 Vp-p

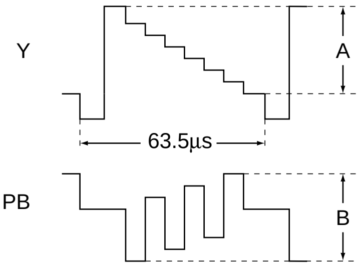


Fig. 4-4

4-5. SUB Y/C LEVEL ADJUSTMENT (FOR THE VDO PATH)

1. Receive the 100 % color bar (480i, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Level Y : 714 ±10 mVp-p, PB,PR : 700 ±10 mVp-p)
2. Connect the oscilloscope between CN005 (A1) pin (V_MIDI_Y), (A2) pin (V_MIDI_PB) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “0 YLEV” and “1 CLEV” so that the waveform levels are 1.400 ±0.015 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

A = 1.400 ±0.015 Vp-p

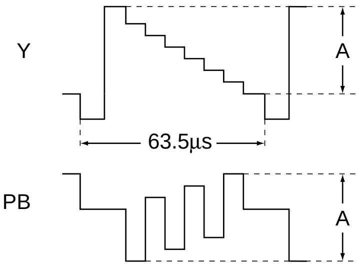


Fig. 4-5

4-6. MAIN DECODER SUB CONTRAST ADJUSTMENT (FOR COMPOSITE AND Y/C INPUTS)

1. Receive the 100 % color bar (480i, 7.5% setup, Y/C) signal with VIDEO 3 input. (White to Black Level Y : 714 ±10 mVp-p, Burst Level C : 285 ±10 mVp-p)
2. Connect the oscilloscope between CN005 (A5) pin (V_DRCI_Y) on the B board and ground.
3. Set in the service mode and select the category “2103-1”.
4. Adjust “2 SCON” so that the waveform level is 1.400 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

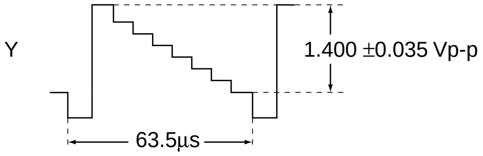


Fig. 4-6

4-7. MAIN DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR COMPOSITE AND Y/C INPUTS)

1. Receive the 100 % color bar (480i, 7.5% setup, Y/C) signal with VIDEO 3 input. (White to Black Level Y : 714 ±10 mVp-p, Burst Level C : 285 ±10 mVp-p)
2. Connect the oscilloscope between CN005 (A6) pin (V_DRCI_PB) on the B board and ground.
3. Set in the service mode and select the category “2103-1”.
4. Adjust “3 SCOL” and “4 SHUE” so that the waveform levels are 1.490 ±0.040 Vp-p and 0.248 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

C2 – C1 = 0.248 ±0.035 Vp-p

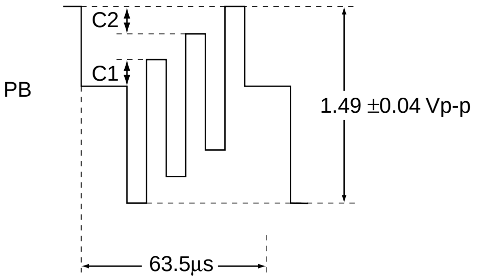


Fig. 4-7

4-8. SUB DECODER SUB CONTRAST ADJUSTMENT (FOR Y/C INPUT)

1. Receive the 100 % color bar (480i, 7.5% setup, Y/C) signal with VIDEO 3 input. (White to Black Level Y : 714 ±10 mVp-p, Burst Level C : 285 ±10 mVp-p)
2. Connect the oscilloscope between CN005 (A1) pin (V_MIDI_Y) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “2 SCON” so that the waveform level is 1.400 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

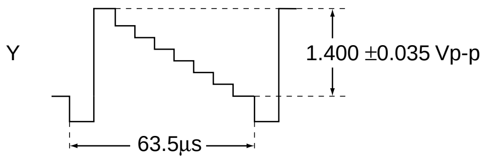


Fig. 4-8

4-9. SUB DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR Y/C INPUT)

1. Receive the 100 % color bar (480i, 7.5% setup, Y/C) signal with VIDEO 3 input. (White to Black Level Y : 714 ±10 mVp-p, Burst Level C : 285 ±10 mVp-p)
2. Connect the oscilloscope between CN005 (A2) pin (V_MIDI_PB) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “3 SCOL” and “4 SHUE” so that the waveform levels are 1.400 ±0.040 Vp-p and 0.248 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

C2 – C1 = 0.248 ±0.035 Vp-p

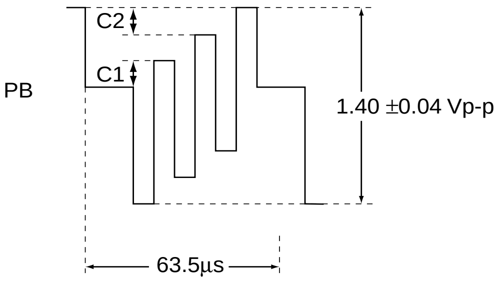


Fig. 4-9

4-10. SUB DECODER SUB CONTRAST ADJUSTMENT (FOR COMPOSITE INPUT)

1. Receive the 100 % color bar (480i, 7.5% setup, composite) signal with VIDEO 1 input.
(Wite to Black Level : 714±10 mVp-p, Burst Level : 285±10 mVp-p)
2. Connect the oscilloscope between CN005 (A1) pin (V_MIDI_Y) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “22 2SCO” so that the waveform level is 1.400 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

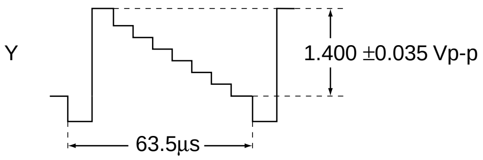


Fig. 4-10

4-11. SUB DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR COMPOSITE INPUT)

1. Receive the 100 % color bar (480i, 7.5% setup, composite) signal with VIDEO 1 input.
(Wite to Black Level : 714±10 mVp-p, Burst Level : 285±10 mVp-p)
2. Connect the oscilloscope between CN005 (A2) pin (V_MIDI_PB) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “23 2SCL” and “24 2SHU” so that the waveform levels are 1.400 ±0.040 Vp-p and 0.248 ±0.035 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

C2 – C1 = 0.248 ±0.035 Vp-p

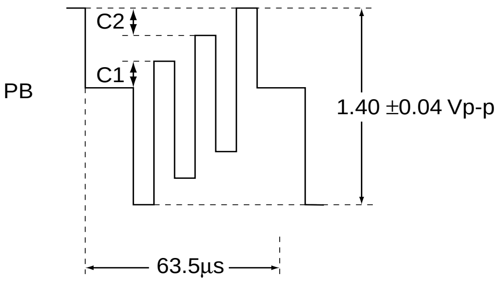


Fig. 4-11

4-12. MAIN DECODER PB AND PR OFFSET ADJUSTMENT

1. Receive the all white (480i, 7.5% setup, composite) signal with VIDEO 1 input. (White to Black Level : 714 ±10 mVp-p)
2. Connect the oscilloscope between CN005 A6 pin (V_DRCI_PB), A7 pin (V_DRCI_PR) on the B board and ground.
3. Set in the service mode and select the category “2103-1”.
4. Adjust “20 CBOF” and “21 CROF” so that the waveform level is 0.000 ±0.003 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.
6. Turn the all white (480i, 0% setup, component) signal with VIDEO 5 input.
   (White to Black Y : Level : 714 ±10 mVp-p, Pb,Pr : 0 Vp-p)
7. Adjust “20 CBOF” and “21 CROF” so that the waveform level is 0.000 ±0.003 Vp-p.
8. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

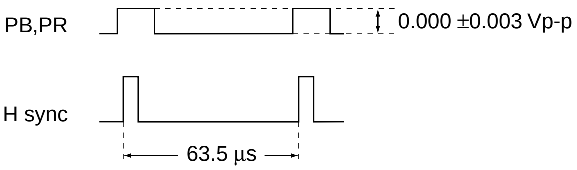


Fig. 4-12

4-13. SUB DECODER PB AND PR OFFSET ADJUSTMENT

1. Receive the all white (480i, 7.5% setup, composite) signal with VIDEO 1 input. (White to Black Level : 714 ±10 mVp-p)
2. Connect the oscilloscope between CN005 A2 pin (V_MIDI_PB), A3 pin (V_MIDI_PR) on the B board and ground.
3. Set in the service mode and select the category “2103-2”.
4. Adjust “20 CBOF” and “21 CROF” so that the waveform level is 0.000 ±0.003 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

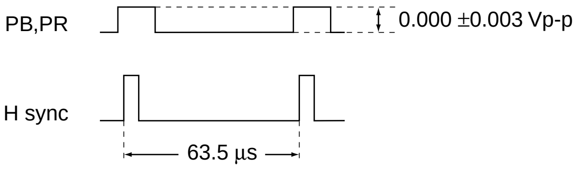


Fig. 4-13

4-14. BLUE OFFSET ADJUSTMENT

1. Receive the all black (1080i, component) signal with VIDEO 5 input, and set PICTURE to maximum.
2. Connect the oscilloscope between CN3009 ⑦ pin (B) on the A board and ground.
3. Set in the service mode and select the category “2150D-2”.
4. Adjust “3 SLIN” so that the waveform level is 2.20 ±0.05 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.
6. Receive the RF signal and change the wide mode to “Wide Zoom”. Copy the same data to “3 SLIN”.

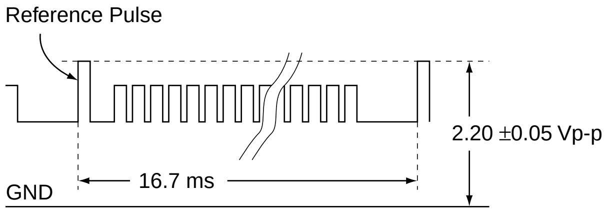


Fig. 4-14

4-15. SUB CONTRAST ADJUSTMENT

1. Receive the 1/25 window (1080i, component) signal with VIDEO 5 input, and set PICTURE to maximum.
2. Connect the oscilloscope between CN3009 ⑥ pin (G) on the A board and ground.
3. Set in the service mode and select the category “2150P-4”.
4. Adjust “0 SCON” so that the waveform level is 2.30 ±0.05 Vp-p.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.
6. Receive the 1/25 window (1080i, DTV) signal.
7. Adjust “0 SCON” so that the waveform level is 2.30 ±0.05 Vp-p.
8. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

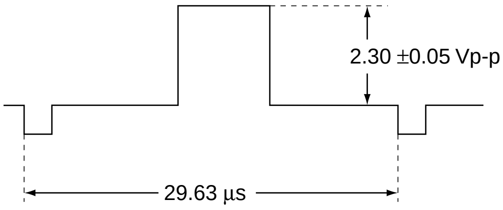


Fig. 4-15

4-16. SUB COLOR AND SUB HUE ADJUSTMENT

1. Receive the 100 % color bar (1080i, component) signal with VIDEO 5 input, and set PICTURE to maximum.
2. Connect the oscilloscope between CN3009 ⑦ pin (B) on the A board and ground.
3. Set in the service mode and select the category “2150P-4”.
4. Adjust “1 SCOL” and “2 SHUE” so that the waveform levels are VB1 = VB4 and VB2 = VB3.
5. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.
6. Receive the 100 % color bar (1080i, DTV) signal.
7. Adjust “1 SCOL” and “2 SHUE” so that the waveform levels are VB1 = VB4 and VB2 = VB3.
8. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

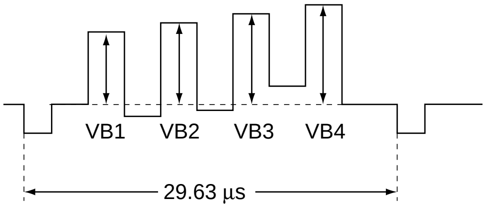


Fig. 4-16

4-17. RF SUB CONTRAST ADJUSTMENT

1. Press “◨ (TWIN)” button on the commander to set the TWIN mode, and set PICTURE to maximum, COLOR to minimum.
2. Receive the 75 % color bar (RF) signal on both side.
3. Connect the oscilloscope between CN3009 ⑥ pin (G) on the A board and ground.
4. Set in the service mode and select the category “MID1”. Select the item “21 BCOL” and set the data to “1”.
5. Select the category “2103-1”.
6. Adjust “2 SCON” so that the left side waveform level is 1.59 ±0.05 Vp-p.
7. Select the category “2103-2”.
8. Adjust “2 SCON” so that the right side waveform level is 1.59 ±0.05 Vp-p.
9. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

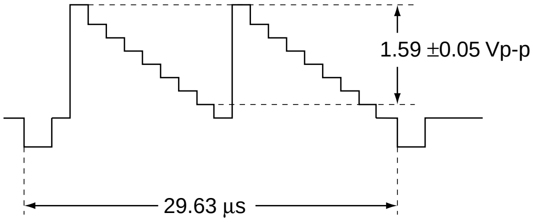


Fig. 4-17

4-18. RF SUB COLOR AND SUB HUE ADJUSTMENT

1. Press “◨ (TWIN)” button on the commander to set the TWIN mode, and set PICTURE to maximum.
2. Receive the 75 % color bar (RF) signal on both side.
3. Connect the oscilloscope between CN3009 ⑦ pin (B) on the A board and ground.
4. Set in the service mode and select the category “MID1”. Select the item “21 BCOL” and set the data to “1”.
5. Select the category “2103-1”.
6. Adjust “3 SCOL” and “4 SHUE” so that the left side waveform levels are VB1 = VB4 and VB2 = VB3.
7. Select the category “2103-2”.
8. Adjust “3 SCOL” and “4 SHUE” so that the right side waveform levels are VB5 = VB8 and VB6 = VB7.
9. After adjustment finished, press “MUTING” + “ENTER” buttons on the commander to write the data to the NVM.

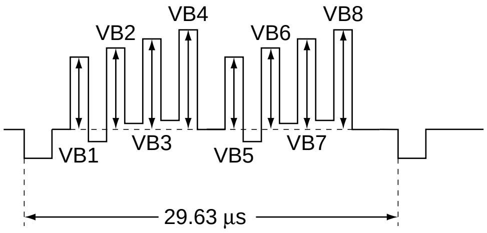


Fig. 4-18

SECTION 5

SAFETY RELATED ADJUSTMENTS

[D BOARD]

5-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check HV regulation, and if necessary re-adjust.

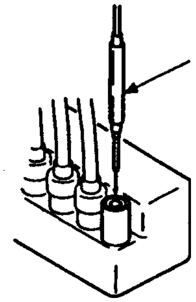
⧓: VR8001
◪: C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the all white signal.
2. Set PIC MAX/BRT CENT.
3. Confirm that the voltage between CN8015 ① pin and GND is less than 7.80VDC.

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Repeat steps 1 and 2 as above.
4. Confirm that the static voltmeter reading is 31.0 ± 0.4V.
5. If not, adjust with VR8001 to the specified value.
6. After adjustment, put the VR cover on VR8001 as shown below and apply sufficient amount of epoxy resin around VR8001.



Remove the cap off from the unused terminal and connect a HV static voltmeter there.

Fig. 5-1

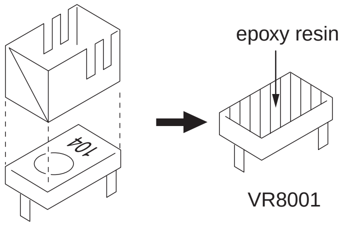


Fig. 5-2

5-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with ◪ on the schematic diagram always check hold-down voltage and if necessary re-adjust.

⧓: VR8002
◪: C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the dot signal.
2. Set PIC MIN/BRT MIN.
3. Confirm that the voltage between cathode of D8038 (JW171) and GND is more than 23.0V DC.
4. Using an external DC Power supply, apply the voltage shown below between cathode of D8038 (JW171) on “D” and GND, then confirm that the HV-Prot circuit works.(Raster disappears.) Apply DC voltage: Less than 29.05V DC.

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Connet an externel 10k VR at CN8015 and adjust this VR so that the high voltoge is 34.50kV.
4. Adjust VR8002 to the point that the HV-Prot circuit works (Raster disappears) at 34.50 ± 0.50kV reading on the static voltmeter.
5. After adjustment, put the VR cover on VR8002 and apply sufficient amount of epoxy resin around VR8002 as the same manner for VR8001.

[G BOARD]

5-3. +B MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC6101.

1. Supply 130VAC to variable autotransformer.
2. Receive dot signal pattern and set the PICTURE and BRIGHTNESS settings to their minimum.
3. Confirm the voltage of TP6102 TP. +B 135V is less than 137.0Vdc.
4. If step 3 not satisfied , replace IC6101 and repeat above steps.

5-4. +B OVP CONFIRMATION

1. Add to low voltage power supply between to TP6101 TP. OVP and ground.
2. Supply 120VAC to variable autotransformer.
3. Power on the Set and receive dot signal pattern.
4. Set the PICTURE and BRIGHTNESS settings.
5. Check the OVP is activated. Operate : 2.60 ± 0.10V

SECTION 6
FIRMWARE UPGRADES

6-1. OVERVIEW

From time to time the KDP-57XBR2/65XBR2 may require an upgrade to its firmware.

The Q-box inside the set allows for upgrading the firmware via a Memory Stick® slot. At such times that upgrades are required, pre-programmed Memory Sticks will be made available to the service network. Be sure to check the Sony Service Company's web site to see if any upgrades are available for correcting the problems you are trying to resolve.

DISCLAIMER:

> Any use of the Memory Stick port for any reason other than a Sony authorized upgrade will void the product warranty. All related repair charges will be the responsibility of the customer.

6-2. TRANSFERRING THE NEW FIRMWARE FROM THE MEMORY STICK TO THE Q-BOX.

1. Turn the PJ on.
2. Insert the Memory Stick containing the new firmware into the Memory Stick slot on the back of the set.
3. If the inserted Memory Stick is the correct type, and its files are correct for the KD-57XBR2/65XBR2 and are not damaged (corrupted), the upgrade process will begin automatically. The screen will display "Memory Upgrade Mode" for 3 seconds, after which the screen will go black until the upgrade is completed.

NOTE: The user controls are inoperative while this upgrade is in progress.

4. A status LED is located above the Memory Stick slot. This LED will flash in several distinct patterns dependent upon the status of the upgrade, as follows:

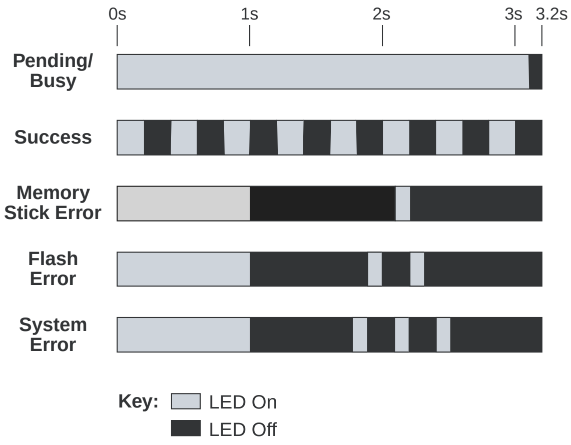
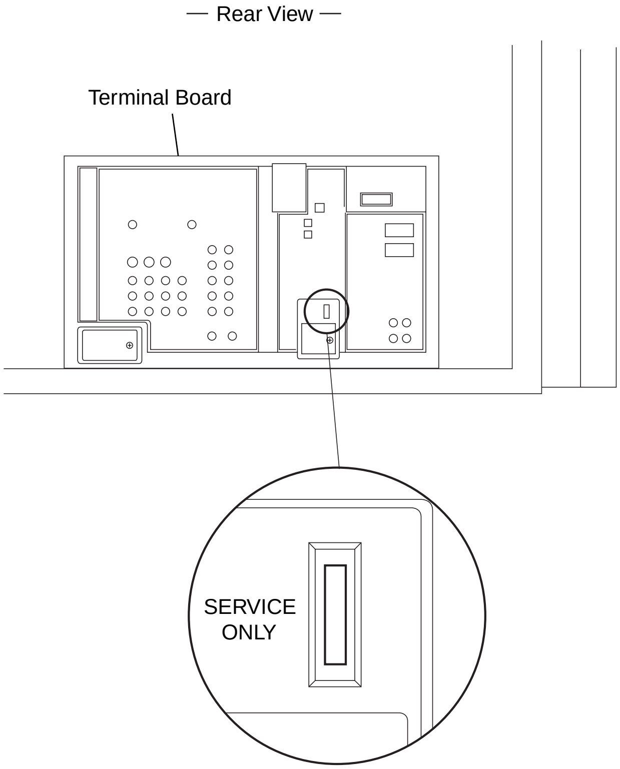


Fig. 6-1

5. When the status LED flashes the "Success" pattern shown Fig. 6-1, the upgrade has completed successfully. Remove the Memory Stick and the set will return to the operating state it was in before the upgrade began.
6. If the status LED flashes the "Flash Error" (flash memory) pattern or the "System Error" pattern shown above, remove the Memory Stick and start over again from step 1.
7. If the status LED flashes the "Memory Stick Error" pattern you must obtain a new Memory Stick and start over from step 1.

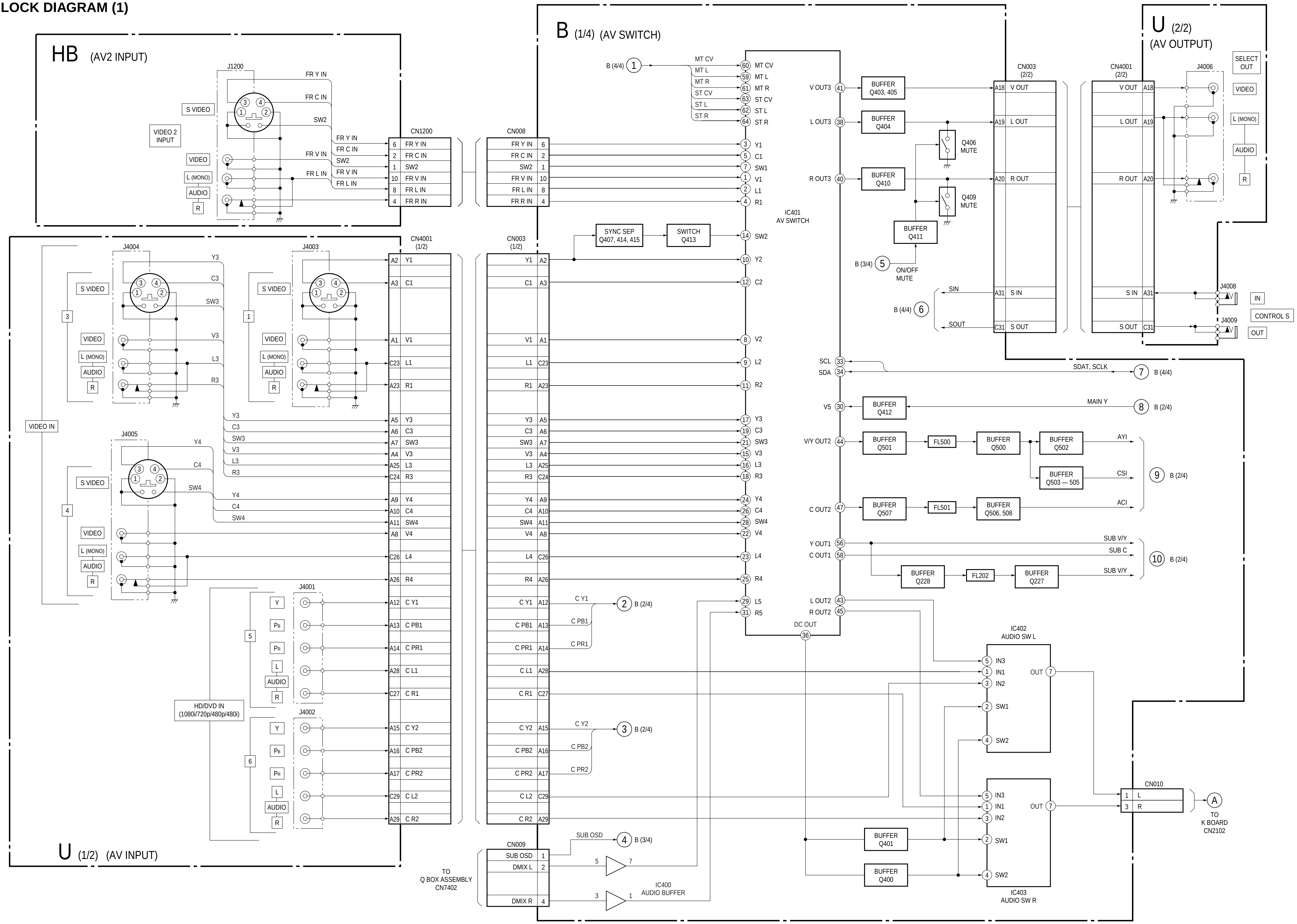


Memory Stick Input Location

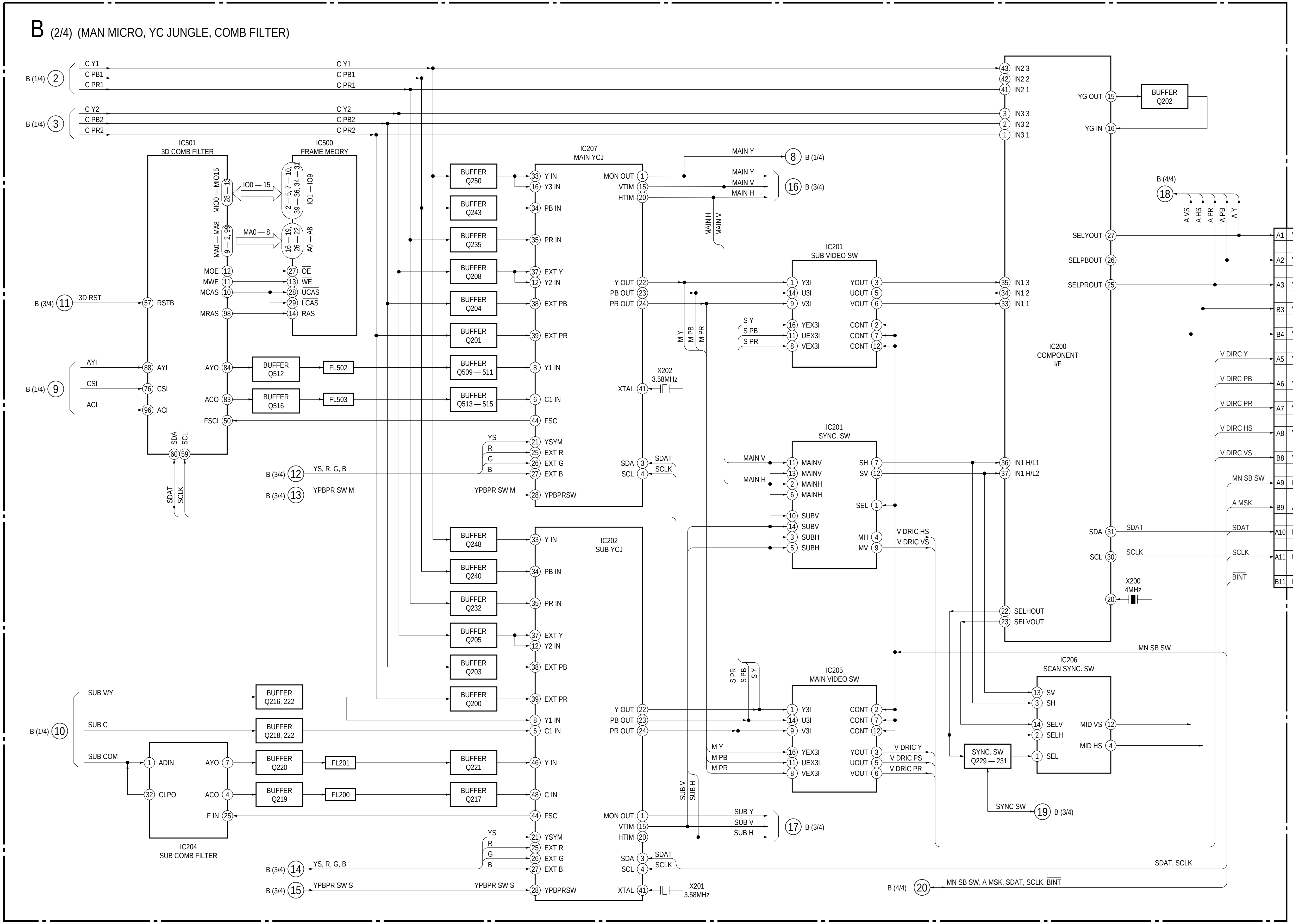
Fig. 6-2

SECTION 7
DIAGRAMS

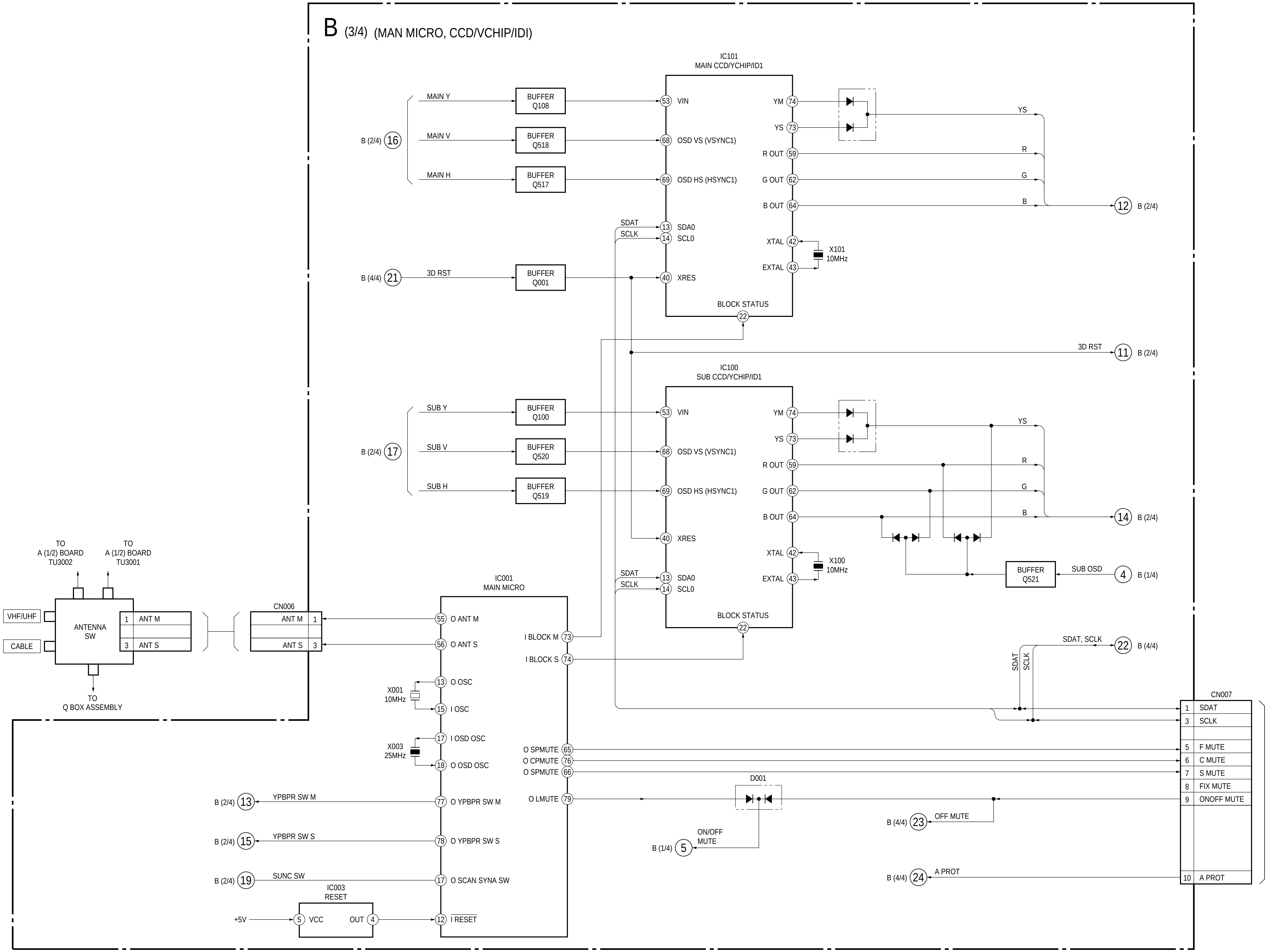
7-1. BLOCK DIAGRAM (1)


HB (AV2 INPUT)
J1200
S VIDEO
VIDEO 2 INPUT
VIDEO
L (MONO)
AUDIO
R
FR Y IN
FR C IN
SW2
FR V IN
FR L IN
FR R IN
CN1200
CN008
B (1/4) (AV SWITCH)
B (4/4) 1
MT CV
MT L
MT R
ST CV
ST L
ST R
IC401 AV SWITCH
SYNC SEP Q407, 414, 415
SWITCH Q413
V OUT3
L OUT3
R OUT3
BUFFER Q403, 405
BUFFER Q404
BUFFER Q410
BUFFER Q411
Q406 MUTE
Q409 MUTE
B (3/4) 5 ON/OFF MUTE
B (4/4) 6
SIN
SOUT
CN003 (2/2)
V OUT
L OUT
R OUT
S IN
S OUT
U (2/2) (AV OUTPUT)
CN4001 (2/2)
J4006
SELECT OUT
VIDEO
L (MONO)
AUDIO
R
J4008
J4009
IN
CONTROL S
OUT
SCL
SDA
SDAT, SCLK
7 B (4/4)
V5
BUFFER Q412
MAIN Y
8 B (2/4)
V/Y OUT2
BUFFER Q501
FL500
BUFFER Q500
BUFFER Q502
BUFFER Q503 — 505
AYI
CSI
ACI
9 B (2/4)
C OUT2
BUFFER Q507
FL501
BUFFER Q506, 508
Y OUT1
C OUT1
SUB V/Y
SUB C
BUFFER Q228
FL202
BUFFER Q227
10 B (2/4)
L OUT2
R OUT2
DC OUT
IC402 AUDIO SW L
IN3
IN1
IN2
SW1
SW2
OUT
IC403 AUDIO SW R
BUFFER Q401
BUFFER Q400
CN010
L
R
A
TO K BOARD CN2102
CN4001 (1/2)
CN003 (1/2)
J4004
J4003
J4005
S VIDEO
VIDEO
L (MONO)
AUDIO
R
VIDEO IN
Y1
C1
V1
L1
R1
Y3
C3
SW3
V3
L3
R3
Y4
C4
SW4
V4
L4
R4
Y2
C2
V2
L2
R2
J4001
J4002
Y
PB
PR
L
AUDIO
R
HD/DVD IN (1080i/720p/480p/480i)
C Y1
C PB1
C PR1
C L1
C R1
C Y2
C PB2
C PR2
C L2
C R2
2 B (2/4)
3 B (2/4)
L5
R5
U (1/2) (AV INPUT)
CN009
SUB OSD
DMIX L
DMIX R
4 B (3/4)
IC400 AUDIO BUFFER
TO Q BOX ASSEMBLY CN7402

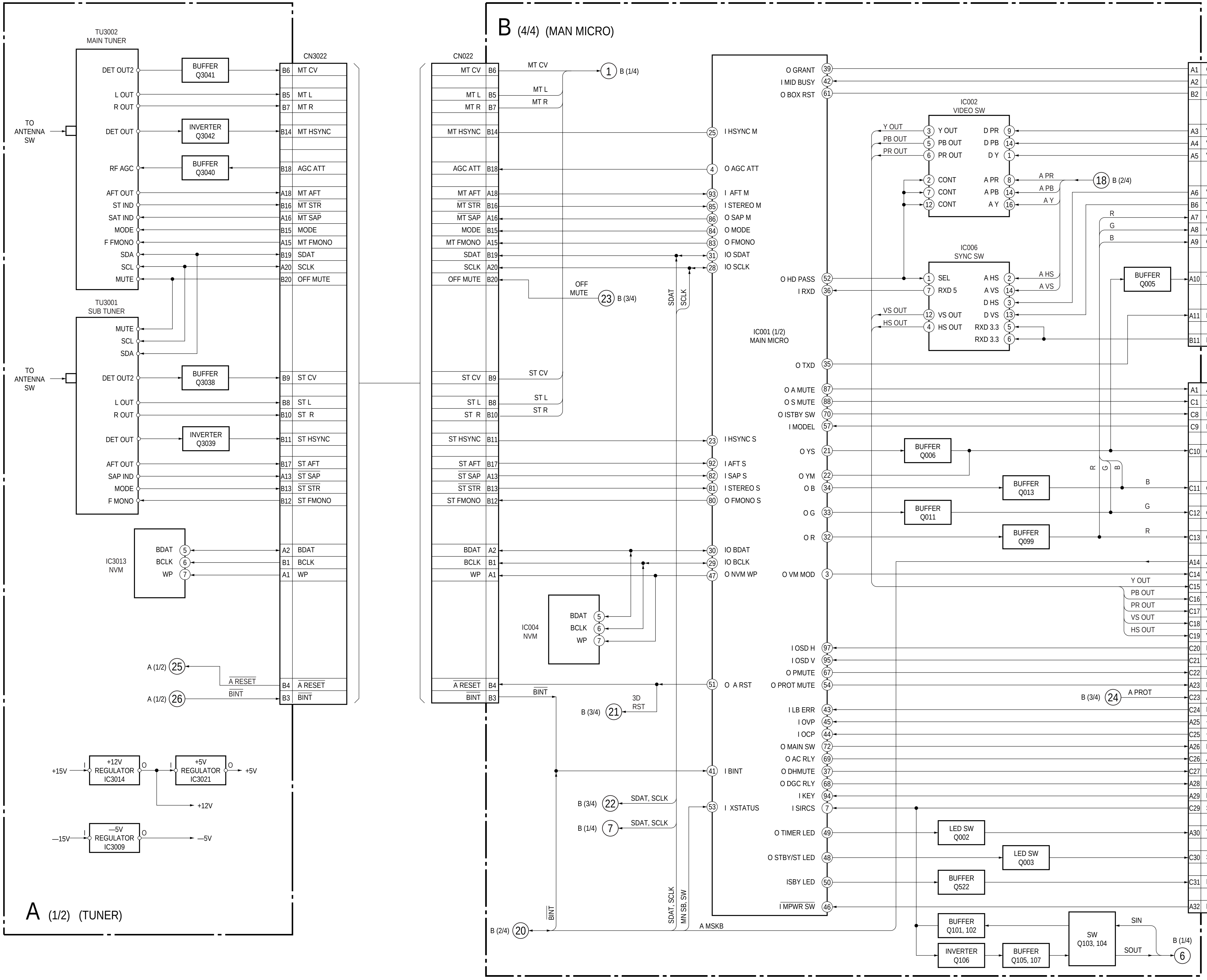
BLOCK DIAGRAM (2)


B (2/4) (MAN MICRO, YC JUNGLE, COMB FILTER)
B (1/4) ② C Y1 C PB1 C PR1
B (1/4) ③ C Y2 C PB2 C PR2
IC501 3D COMB FILTER
IC500 FRAME MEORY
MIO0 — MIO15 28 — 13
IO0 — 15
2 — 5, 7 — 10, 39 — 36, 34 — 31
IO1 — IO9
MA0 — MA8 9 — 2, 99
MA0 — 8
16 — 19, 26 — 22
A0 — A8
MOE 12 27 OE
MWE 11 13 WE
MCAS 10 28 UCAS
29 LCAS
MRAS 98 14 RAS
B (3/4) ⑪ 3D RST 57 RSTB
B (1/4) ⑨ AYI 88 AYI, CSI 76 CSI, ACI 96 ACI
AYO 84 BUFFER Q512 FL502
ACO 83 BUFFER Q516 FL503
FSCI 50
SDA SCL 60 59
SDAT SCLK
BUFFER Q250, BUFFER Q243, BUFFER Q235, BUFFER Q208, BUFFER Q204, BUFFER Q201, BUFFER Q509 — 511, BUFFER Q513 — 515
IC207 MAIN YCJ
33 Y IN, 16 Y3 IN, 34 PB IN, 35 PR IN, 37 EXT Y, 12 Y2 IN, 38 EXT PB, 39 EXT PR, 8 Y1 IN, 6 C1 IN, 44 FSC, 21 YSYM, 25 EXT R, 26 EXT G, 27 EXT B, 28 YPBPRSW
MON OUT 1, VTIM 15, HTIM 20, Y OUT 22, PB OUT 23, PR OUT 24, XTAL 41, SDA 3, SCL 4
X202 3.58MHz
YS R G B
B (3/4) ⑫ YS, R, G, B
B (3/4) ⑬ YPBPR SW M
MAIN Y ⑧ B (1/4)
MAIN Y MAIN V MAIN H ⑯ B (3/4)
MAIN H MAIN V
M Y M PB M PR
IC201 SUB VIDEO SW
1 Y3I, 14 U3I, 9 V3I, 16 YEX3I, 11 UEX3I, 8 VEX3I, YOUT 3, UOUT 5, VOUT 6, CONT 2, CONT 7, CONT 12
S Y S PB S PR
IC201 SYNC. SW
MAIN V 11 MAINV, 13 MAINV, MAIN H 2 MAINH, 6 MAINH, 10 SUBV, 14 SUBV, 3 SUBH, 5 SUBH
SH 7, SV 12, SEL 1, MH 4, MV 9
V DRIC HS, V DRIC VS
BUFFER Q248, BUFFER Q240, BUFFER Q232, BUFFER Q205, BUFFER Q203, BUFFER Q200
IC202 SUB YCJ
33 Y IN, 34 PB IN, 35 PR IN, 37 EXT Y, 12 Y2 IN, 38 EXT PB, 39 EXT PR, 8 Y1 IN, 6 C1 IN, 46 Y IN, 48 C IN, 44 FSC, 21 YSYM, 25 EXT R, 26 EXT G, 27 EXT B, 28 YPBPRSW
Y OUT 22, PB OUT 23, PR OUT 24, MON OUT 1, VTIM 15, HTIM 20, SDA 3, SCL 4, XTAL 41
X201 3.58MHz
B (1/4) ⑩ SUB V/Y, SUB C, SUB COM
BUFFER Q216, 222, BUFFER Q218, 222, BUFFER Q220, BUFFER Q219, FL201, FL200, BUFFER Q221, BUFFER Q217
IC204 SUB COMB FILTER
1 ADIN, 32 CLPO, AYO 7, ACO 4, F IN 25
B (3/4) ⑭ YS, R, G, B
B (3/4) ⑮ YPBPR SW S
SUB Y SUB V SUB H ⑰ B (3/4)
SUB V SUB H
IC205 MAIN VIDEO SW
1 Y3I, 14 U3I, 9 V3I, 16 YEX3I, 11 UEX3I, 8 VEX3I, CONT 2, CONT 7, CONT 12, YOUT 3, UOUT 5, VOUT 6
M Y M PB M PR
V DRIC Y, V DRIC PS, V DRIC PR
IC200 COMPONENT I/F
43 IN2 3, 42 IN2 2, 41 IN2 1, 3 IN3 3, 2 IN3 2, 1 IN3 1, 35 IN1 3, 34 IN1 2, 33 IN1 1, 36 IN1 H/L1, 37 IN1 H/L2, 22 SELHOUT, 23 SELVOUT
YG OUT 15, YG IN 16, SELYOUT 27, SELPBOUT 26, SELPROUT 25, SDA 31, SCL 30, 20
BUFFER Q202
X200 4MHz
B (4/4) ⑱ A VS A HS A PR A PB A Y
IC206 SCAN SYNC. SW
13 SV, 3 SH, 14 SELV, 2 SELH, 1 SEL, MID VS 12, MID HS 4
SYNC. SW Q229 — 231
SYNC SW ⑲ B (3/4)
MN SB SW
SDAT, SCLK
B (4/4) ⑳ MN SB SW, A MSK, SDAT, SCLK, BINT
V DIRC Y, V DIRC PB, V DIRC PR, V DIRC HS, V DIRC VS, MN SB SW, A MSK, SDAT, SCLK, BINT
CN005
A1 V MID Y, A2 V MIDI PB, A3 V MIDI PR, B3 V MIDI HS, B4 V MIDI HS, A5 V DRCI Y, A6 V DRCI PB, A7 V DRCI PR, A8 V DRCI HS, B8 V DRCI VS, A9 MN SB SW, B9 A MSK, A10 EXT SDA, A11 EXT SCL, B11 BINT
TO Q BOX ASSEMBLY CN8001

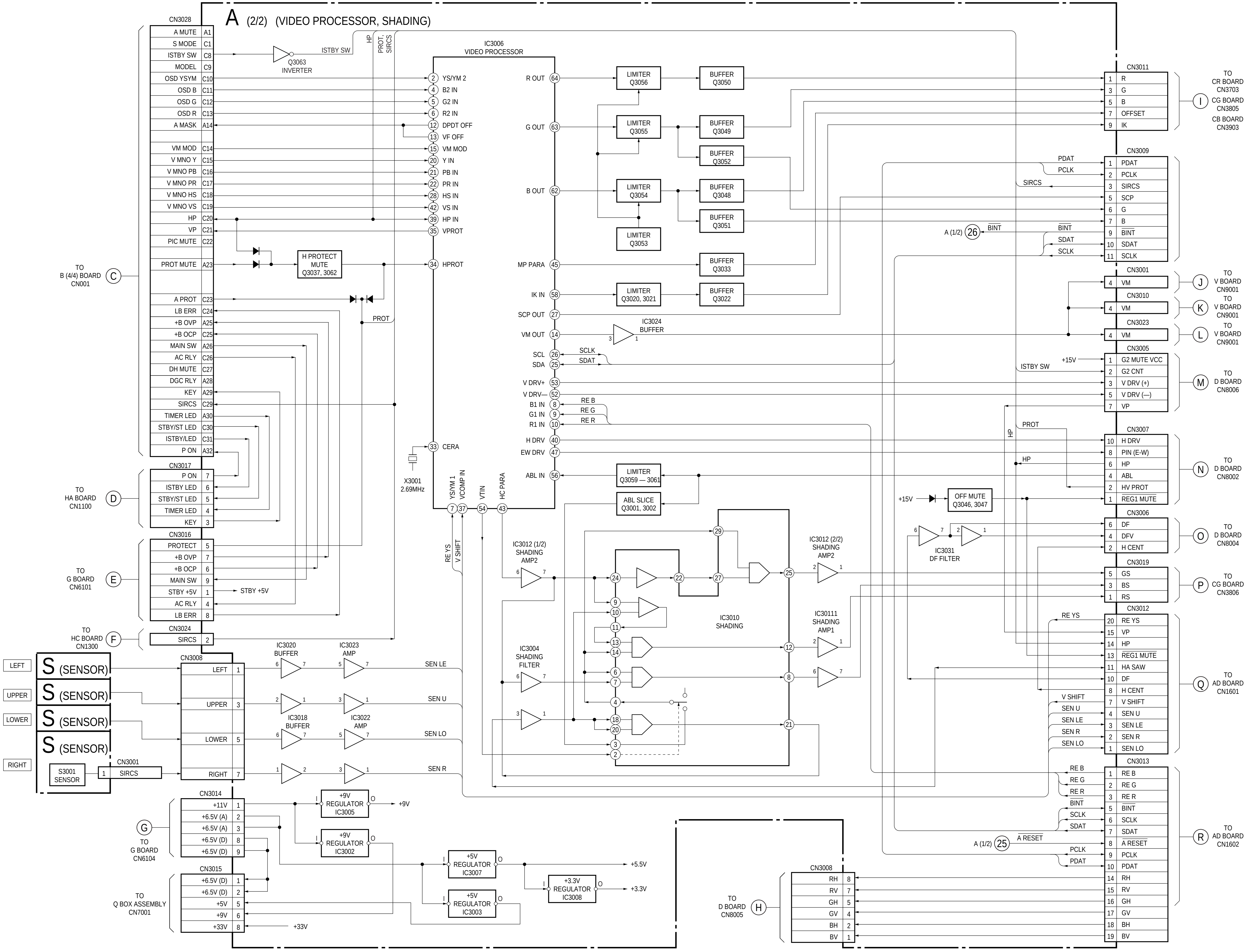
BLOCK DIAGRAM (3)


B (3/4) (MAN MICRO, CCD/VCHIP/IDI)
IC101
MAIN CCD/YCHIP/ID1
MAIN Y
MAIN V
MAIN H
B (2/4) 16
BUFFER Q108
BUFFER Q518
BUFFER Q517
53 VIN
68 OSD VS (VSYNC1)
69 OSD HS (HSYNC1)
YM 74
YS 73
R OUT 59
G OUT 62
B OUT 64
YS
R
G
B
12 B (2/4)
SDAT
SCLK
13 SDA0
14 SCL0
XTAL 42
EXTAL 43
X101
10MHz
B (4/4) 21
3D RST
BUFFER Q001
40 XRES
BLOCK STATUS
22
3D RST
11 B (2/4)
IC100
SUB CCD/YCHIP/ID1
SUB Y
SUB V
SUB H
B (2/4) 17
BUFFER Q100
BUFFER Q520
BUFFER Q519
53 VIN
68 OSD VS (VSYNC1)
69 OSD HS (HSYNC1)
YM 74
YS 73
R OUT 59
G OUT 62
B OUT 64
YS
R
G
B
14 B (2/4)
40 XRES
XTAL 42
EXTAL 43
X100
10MHz
BUFFER Q521
SUB OSD
4 B (1/4)
SDAT
SCLK
13 SDA0
14 SCL0
BLOCK STATUS
22
SDAT, SCLK
22 B (4/4)
SDAT
SCLK
TO
A (1/2) BOARD
TU3002
TO
A (1/2) BOARD
TU3001
VHF/UHF
CABLE
ANTENNA SW
1 ANT M
3 ANT S
TO
Q BOX ASSEMBLY
CN006
ANT M 1
ANT S 3
IC001
MAIN MICRO
55 O ANT M
56 O ANT S
I BLOCK M 73
I BLOCK S 74
X001
10MHz
13 O OSC
15 I OSC
X003
25MHz
17 I OSD OSC
18 O OSD OSC
O SPMUTE 65
O CPMUTE 76
O SPMUTE 66
O LMUTE 79
D001
ON/OFF
MUTE
B (1/4) 5
B (4/4) 23
OFF MUTE
B (4/4) 24
A PROT
B (2/4) 13
YPBPR SW M
77 O YPBPR SW M
B (2/4) 15
YPBPR SW S
78 O YPBPR SW S
B (2/4) 19
SUNC SW
17 O SCAN SYNA SW
IC003
RESET
+5V
5 VCC
OUT 4
12 I RESET
CN007
1 SDAT
3 SCLK
5 F MUTE
6 C MUTE
7 S MUTE
8 FIX MUTE
9 ONOFF MUTE
10 A PROT
B
TO
K BOARD
CN2103

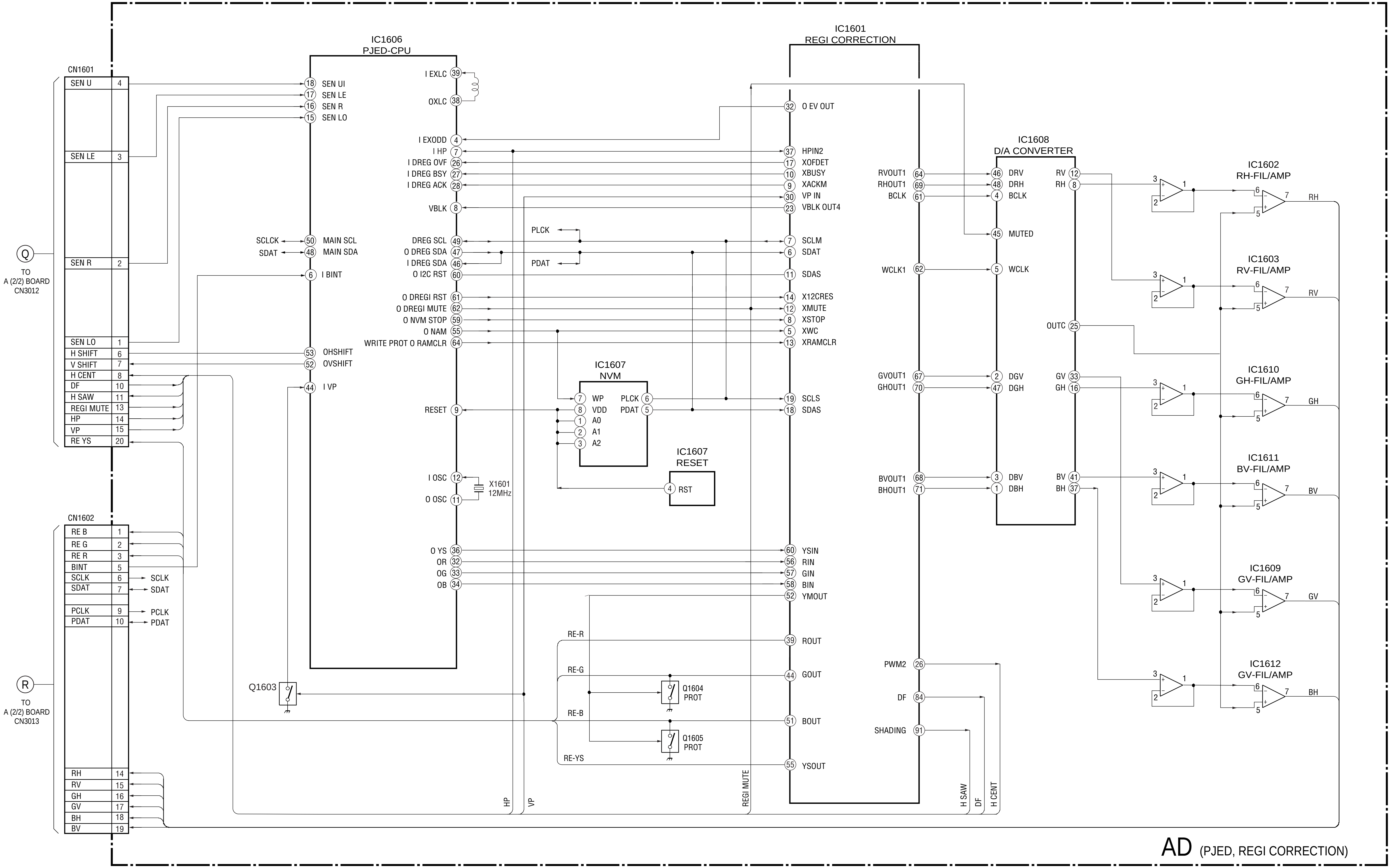
BLOCK DIAGRAM (4)


TU3002
MAIN TUNER
DET OUT2
L OUT
R OUT
DET OUT
RF AGC
AFT OUT
ST IND
SAT IND
MODE
F FMONO
SDA
SCL
MUTE
TO ANTENNA SW
BUFFER Q3041
INVERTER Q3042
BUFFER Q3040
TU3001
SUB TUNER
MUTE
SCL
SDA
DET OUT2
L OUT
R OUT
DET OUT
AFT OUT
SAP IND
MODE
F MONO
TO ANTENNA SW
BUFFER Q3038
INVERTER Q3039
IC3013
NVM
BDAT 5
BCLK 6
WP 7
CN3022
B6 MT CV
B5 MT L
B7 MT R
B14 MT HSYNC
B18 AGC ATT
A18 MT AFT
B16 MT STR
A16 MT SAP
B15 MODE
A15 MT FMONO
B19 SDAT
A20 SCLK
B20 OFF MUTE
B9 ST CV
B8 ST L
B10 ST R
B11 ST HSYNC
B17 ST AFT
A13 ST SAP
B13 ST STR
B12 ST FMONO
A2 BDAT
B1 BCLK
A1 WP
B4 A RESET
B3 BINT
A (1/2) 25
A (1/2) 26
A RESET
BINT
+15V
+12V REGULATOR IC3014
+5V REGULATOR IC3021
+5V
+12V
—15V
—5V REGULATOR IC3009
—5V
I
O
A (1/2) (TUNER)
B (4/4) (MAN MICRO)
CN022
MT CV B6
MT L B5
MT R B7
MT HSYNC B14
AGC ATT B18
MT AFT A18
MT STR B16
MT SAP A16
MODE B15
MT FMONO A15
SDAT B19
SCLK A20
OFF MUTE B20
ST CV B9
ST L B8
ST R B10
ST HSYNC B11
ST AFT B17
ST SAP A13
ST STR B13
ST FMONO B12
BDAT A2
BCLK B1
WP A1
A RESET B4
BINT B3
MT CV
MT L
MT R
ST CV
ST L
ST R
1 B (1/4)
OFF MUTE
23 B (3/4)
SDAT
SCLK
IC004
NVM
BDAT 5
BCLK 6
WP 7
BINT
3D RST
B (3/4) 21
B (3/4) 22 SDAT, SCLK
B (1/4) 7 SDAT, SCLK
SDAT, SCLK
MN SB, SW
BINT
B (2/4) 20
A MSKB
IC001 (1/2)
MAIN MICRO
25 I HSYNC M
4 O AGC ATT
93 I AFT M
85 I STEREO M
86 O SAP M
84 O MODE
83 O FMONO
31 IO SDAT
28 IO SCLK
23 I HSYNC S
92 I AFT S
82 I SAP S
81 I STEREO S
80 O FMONO S
30 IO BDAT
29 IO BCLK
47 O NVM WP
51 O A RST
41 I BINT
53 I XSTATUS
O GRANT 39
I MID BUSY 42
O BOX RST 61
O HD PASS 52
I RXD 36
O TXD 35
O A MUTE 87
O S MUTE 88
O ISTBY SW 70
I MODEL 57
O YS 21
O YM 22
O B 34
O G 33
O R 32
O VM MOD 3
I OSD H 97
I OSD V 95
O PMUTE 67
O PROT MUTE 54
I LB ERR 43
I OVP 45
I OCP 44
O MAIN SW 72
O AC RLY 69
O DHMUTE 37
O DGC RLY 68
I KEY 94
I SIRCS 7
O TIMER LED 49
O STBY/ST LED 48
ISBY LED 50
I MPWR SW 46
IC002
VIDEO SW
Y OUT
PB OUT
PR OUT
3 Y OUT
5 PB OUT
6 PR OUT
2 CONT
7 CONT
12 CONT
D PR 9
D PB 14
D Y 1
A PR 8
A PB 14
A Y 16
A PR
A PB
A Y
18 B (2/4)
IC006
SYNC SW
1 SEL
7 RXD 5
12 VS OUT
4 HS OUT
VS OUT
HS OUT
A HS 2
A VS 14
D HS 3
D VS 13
RXD 3.3 5
RXD 3.3 6
A HS
A VS
R
G
B
BUFFER Q005
BUFFER Q006
BUFFER Q013
BUFFER Q011
BUFFER Q099
Y OUT
PB OUT
PR OUT
VS OUT
HS OUT
B (3/4) 24 A PROT
LED SW Q002
LED SW Q003
BUFFER Q522
BUFFER Q101, 102
INVERTER Q106
BUFFER Q105, 107
SW Q103, 104
SIN
SOUT
B (1/4) 6
CN004
A1 GRANT
A2 MID BUSY
B2 MICON RST
A3 V MNO PR
A4 V MNO PB
A5 V MNO Y
A6 V MNO HS
B6 V MNO VS
A7 OSD R
A8 OSD G
A9 OSD B
A10 YSYM
A11 M16C TXD
B11 M16C RXD
TO Q BOX ASSEMBLY CN8401
CN001
A1 A MUTE
C1 S MODE
C8 ISTBY SW
C9 MODEL
C10 OSD YSYM
C11 OSD B
C12 OSD G
C13 OSD R
A14 A MASK
C14 VM MOD
C15 V MNO Y
C16 V MNO PB
C17 V MNO PR
C18 V MNO HS
C19 V MNO VS
C20 HP
C21 VP
C22 PIC MUTE
A23 PROT MUTE
C23 A PROT
C24 LB ERR
A25 +B OVP
C25 +B OCP
A26 MAIN SW
C26 AC RLY
C27 DH MUTE
A28 DGC RLY
A29 KEY
C29 SIRCS
A30 TIMER LED
C30 STBY/ST LED
C31 ISTBY/LED
A32 P ON
C
TO A (2/2) BOARD CN3028

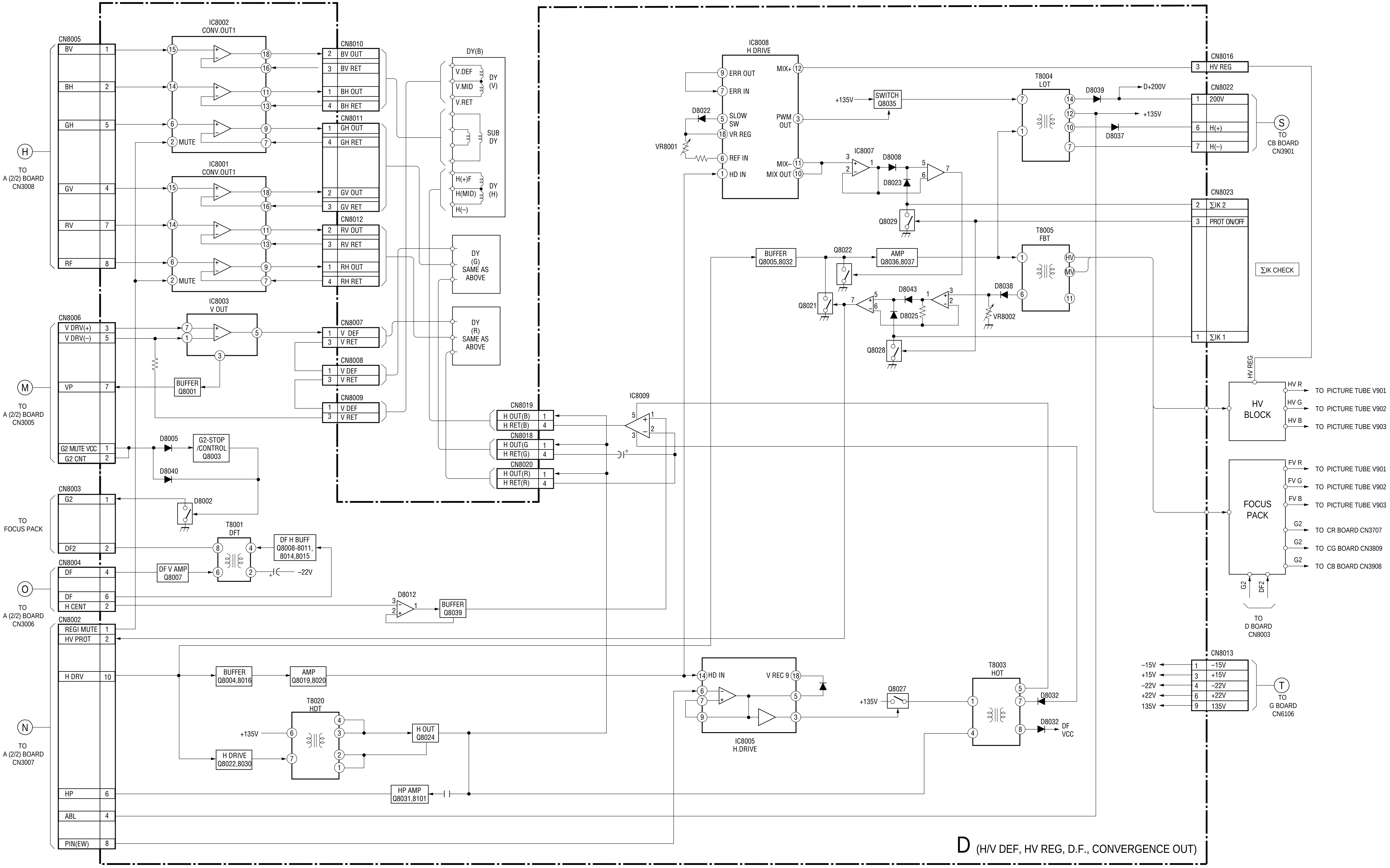
BLOCK DIAGRAM (5)


A (2/2) (VIDEO PROCESSOR, SHADING)
CN3028
A MUTE A1
S MODE C1
ISTBY SW C8
MODEL C9
OSD YSYM C10
OSD B C11
OSD G C12
OSD R C13
A MASK A14
VM MOD C14
V MNO Y C15
V MNO PB C16
V MNO PR C17
V MNO HS C18
V MNO VS C19
HP C20
VP C21
PIC MUTE C22
PROT MUTE A23
A PROT C23
LB ERR C24
+B OVP A25
+B OCP C25
MAIN SW A26
AC RLY C26
DH MUTE C27
DGC RLY A28
KEY A29
SIRCS C29
TIMER LED A30
STBY/ST LED C30
ISTBY/LED C31
P ON A32
TO B (4/4) BOARD CN001
C
Q3063 INVERTER
ISTBY SW
HP
PROT, SIRCS
H PROTECT MUTE Q3037, 3062
PROT
IC3006 VIDEO PROCESSOR
2 YS/YM 2
4 B2 IN
5 G2 IN
6 R2 IN
12 DPDT OFF
13 VF OFF
15 VM MOD
20 Y IN
21 PB IN
22 PR IN
28 HS IN
42 VS IN
39 HP IN
35 VPROT
34 HPROT
33 CERA
X3001 2.69MHz
YS/YM 1
VCOMP IN
VTIN
HC PARA
7 37 54 43
RE YS
V SHIFT
R OUT 64
G OUT 63
B OUT 62
MP PARA 45
IK IN 58
SCP OUT 27
VM OUT 14
SCL 26
SDA 25
V DRV+ 53
V DRV– 52
B1 IN 8
G1 IN 9
R1 IN 10
H DRV 40
EW DRV 47
ABL IN 56
SCLK
SDAT
RE B
RE G
RE R
LIMITER Q3056
LIMITER Q3055
LIMITER Q3054
LIMITER Q3053
LIMITER Q3020, 3021
LIMITER Q3059 — 3061
ABL SLICE Q3001, 3002
BUFFER Q3050
BUFFER Q3049
BUFFER Q3052
BUFFER Q3048
BUFFER Q3051
BUFFER Q3033
BUFFER Q3022
IC3024 BUFFER
3 1
CN3011
1 R
3 G
5 B
7 OFFSET
9 IK
TO CR BOARD CN3703
CG BOARD CN3805
CB BOARD CN3903
I
CN3009
1 PDAT
2 PCLK
3 SIRCS
5 SCP
6 G
7 B
9 BINT
10 SDAT
11 SCLK
PDAT
PCLK
SIRCS
BINT
SDAT
SCLK
A (1/2) 26
CN3001
4 VM
TO V BOARD CN9001
J
CN3010
4 VM
TO V BOARD CN9001
K
CN3023
4 VM
TO V BOARD CN9001
L
CN3005
1 G2 MUTE VCC
2 G2 CNT
3 V DRV (+)
5 V DRV (—)
7 VP
+15V
ISTBY SW
TO D BOARD CN8006
M
CN3007
10 H DRV
8 PIN (E-W)
6 HP
4 ABL
2 HV PROT
1 REG1 MUTE
PROT
HP
TO D BOARD CN8002
N
+15V
OFF MUTE Q3046, 3047
CN3006
6 DF
4 DFV
2 H CENT
IC3031 DF FILTER
6 7 2 1
TO D BOARD CN8004
O
CN3019
5 GS
3 BS
1 RS
TO CG BOARD CN3806
P
CN3012
20 RE YS
15 VP
14 HP
13 REG1 MUTE
11 HA SAW
10 DF
8 H CENT
7 V SHIFT
4 SEN U
3 SEN LE
2 SEN R
1 SEN LO
RE YS
V SHIFT
SEN U
SEN LE
SEN R
SEN LO
TO AD BOARD CN1601
Q
CN3013
1 RE B
2 RE G
3 RE R
5 BINT
6 SCLK
7 SDAT
8 A RESET
9 PCLK
10 PDAT
14 RH
15 RV
16 GH
17 GV
18 BH
19 BV
A (1/2) 25
A RESET
TO AD BOARD CN1602
R
IC3012 (1/2) SHADING AMP2
IC3012 (2/2) SHADING AMP2
IC3011 SHADING AMP1
IC3010 SHADING
IC3004 SHADING FILTER
29 24 22 27 25 9 10 11 13 14 6 7 8 4 18 20 21 3 2 12
CN3017
P ON 7
ISTBY LED 6
STBY/ST LED 5
TIMER LED 4
KEY 3
TO HA BOARD CN1100
D
CN3016
PROTECT 5
+B OVP 7
+B OCP 6
MAIN SW 9
STBY +5V 1
AC RLY 4
LB ERR 8
STBY +5V
TO G BOARD CN6101
E
CN3024
SIRCS 2
TO HC BOARD CN1300
F
LEFT
UPPER
LOWER
RIGHT
S (SENSOR)
S (SENSOR)
S (SENSOR)
S (SENSOR)
S3001 SENSOR
CN3001
1 SIRCS
CN3008
LEFT 1
UPPER 3
LOWER 5
RIGHT 7
IC3020 BUFFER
IC3023 AMP
IC3018 BUFFER
IC3022 AMP
SEN LE
SEN U
SEN LO
SEN R
CN3014
+11V 1
+6.5V (A) 2
+6.5V (A) 3
+6.5V (D) 8
+6.5V (D) 9
TO G BOARD CN6104
G
CN3015
+6.5V (D) 1
+6.5V (D) 2
+5V 5
+9V 6
+33V 8
+33V
TO Q BOX ASSEMBLY CN7001
+9V REGULATOR IC3005
+9V REGULATOR IC3002
+9V
+5V REGULATOR IC3007
+5V REGULATOR IC3003
+3.3V REGULATOR IC3008
+5.5V
+3.3V
I O
CN3008
RH 8
RV 7
GH 5
GV 4
BH 2
BV 1
TO D BOARD CN8005
H

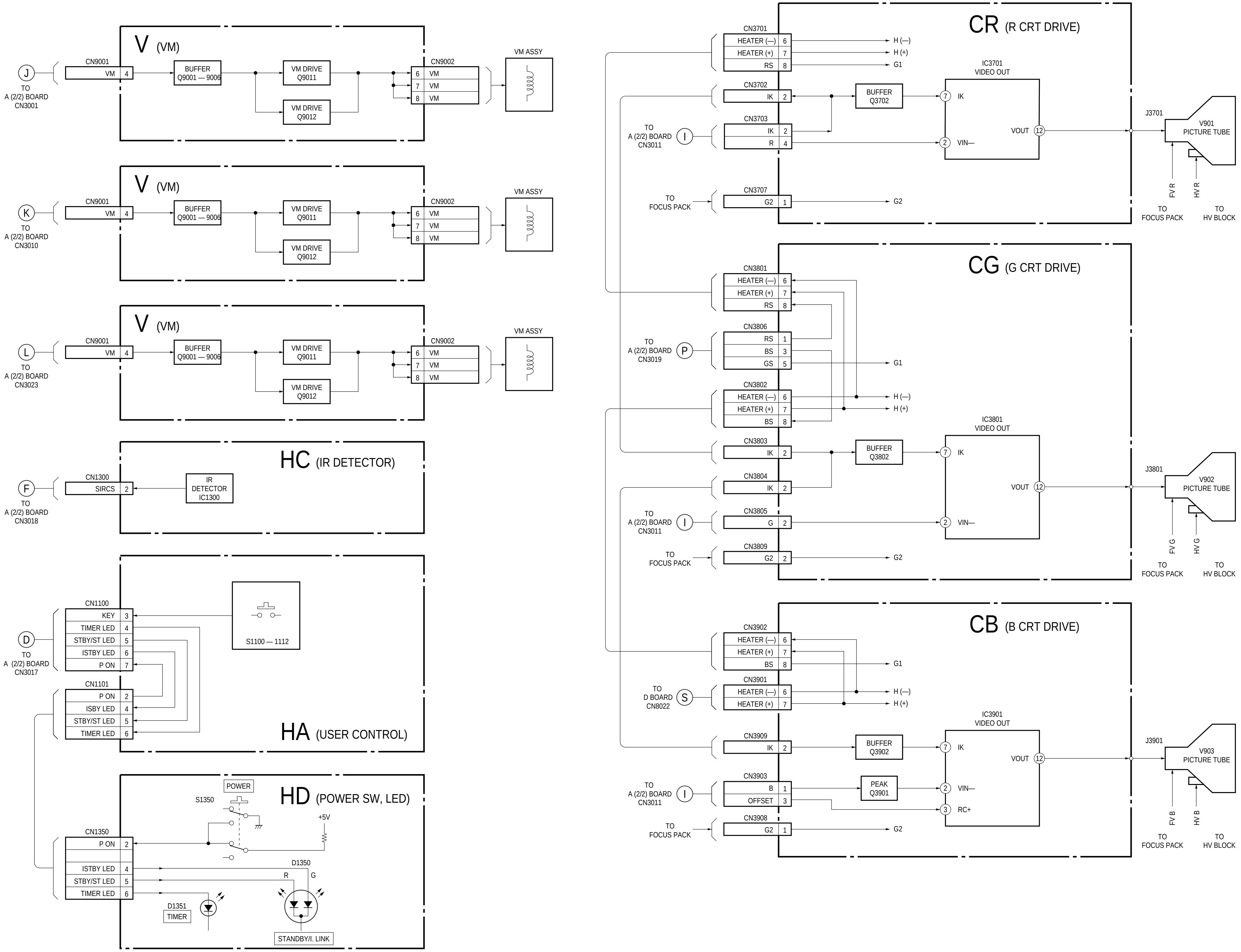
BLOCK DIAGRAM (6)


IC1606
PJED-CPU
IC1601
REGI CORRECTION
IC1608
D/A CONVERTER
IC1607
NVM
IC1607
RESET
IC1602
RH-FIL/AMP
IC1603
RV-FIL/AMP
IC1610
GH-FIL/AMP
IC1611
BV-FIL/AMP
IC1609
GV-FIL/AMP
IC1612
GV-FIL/AMP
CN1601
SEN U 4
SEN LE 3
SEN R 2
SEN LO 1
H SHIFT 6
V SHIFT 7
H CENT 8
DF 10
H SAW 11
REGI MUTE 13
HP 14
VP 15
RE YS 20
Q
TO
A (2/2) BOARD
CN3012
CN1602
RE B 1
RE G 2
RE R 3
BINT 5
SCLK 6
SDAT 7
PCLK 9
PDAT 10
RH 14
RV 15
GH 16
GV 17
BH 18
BV 19
R
TO
A (2/2) BOARD
CN3013
SCLK
SDAT
PCLK
PDAT
18 SEN UI
17 SEN LE
16 SEN R
15 SEN LO
50 MAIN SCL
48 MAIN SDA
6 I BINT
53 OHSHIFT
52 OVSHIFT
44 I VP
I EXLC 39
OXLC 38
I EXODD 4
I HP 7
I DREG OVF 26
I DREG BSY 27
I DREG ACK 28
VBLK 8
DREG SCL 49
O DREG SDA 47
I DREG SDA 46
O I2C RST 60
O DREGI RST 61
O DREGI MUTE 62
O NVM STOP 59
O NAM 55
WRITE PROT O RAMCLR 64
RESET 9
I OSC 12
O OSC 11
X1601
12MHz
O YS 36
OR 32
OG 33
OB 34
PLCK
PDAT
7 WP
8 VDD
1 A0
2 A1
3 A2
PLCK 6
PDAT 5
4 RST
32 O EV OUT
37 HPIN2
17 XOFDET
10 XBUSY
9 XACKM
30 VP IN
23 VBLK OUT4
7 SCLM
6 SDAT
11 SDAS
14 X12CRES
12 XMUTE
8 XSTOP
5 XWC
13 XRAMCLR
19 SCLS
18 SDAS
60 YSIN
56 RIN
57 GIN
58 BIN
52 YMOUT
39 ROUT
44 GOUT
51 BOUT
55 YSOUT
RE-R
RE-G
RE-B
RE-YS
Q1603
Q1604
PROT
Q1605
PROT
HP
VP
REGI MUTE
H SAW
DF
H CENT
RVOUT1 64
RHOUT1 69
BCLK 61
WCLK1 62
GVOUT1 67
GHOUT1 70
BVOUT1 68
BHOUT1 71
PWM2 26
DF 84
SHADING 91
46 DRV
48 DRH
4 BCLK
45 MUTED
5 WCLK
2 DGV
47 DGH
3 DBV
1 DBH
RV 12
RH 8
OUTC 25
GV 33
GH 16
BV 41
BH 37
RH
RV
GH
BV
GV
BH
AD (PJED, REGI CORRECTION)

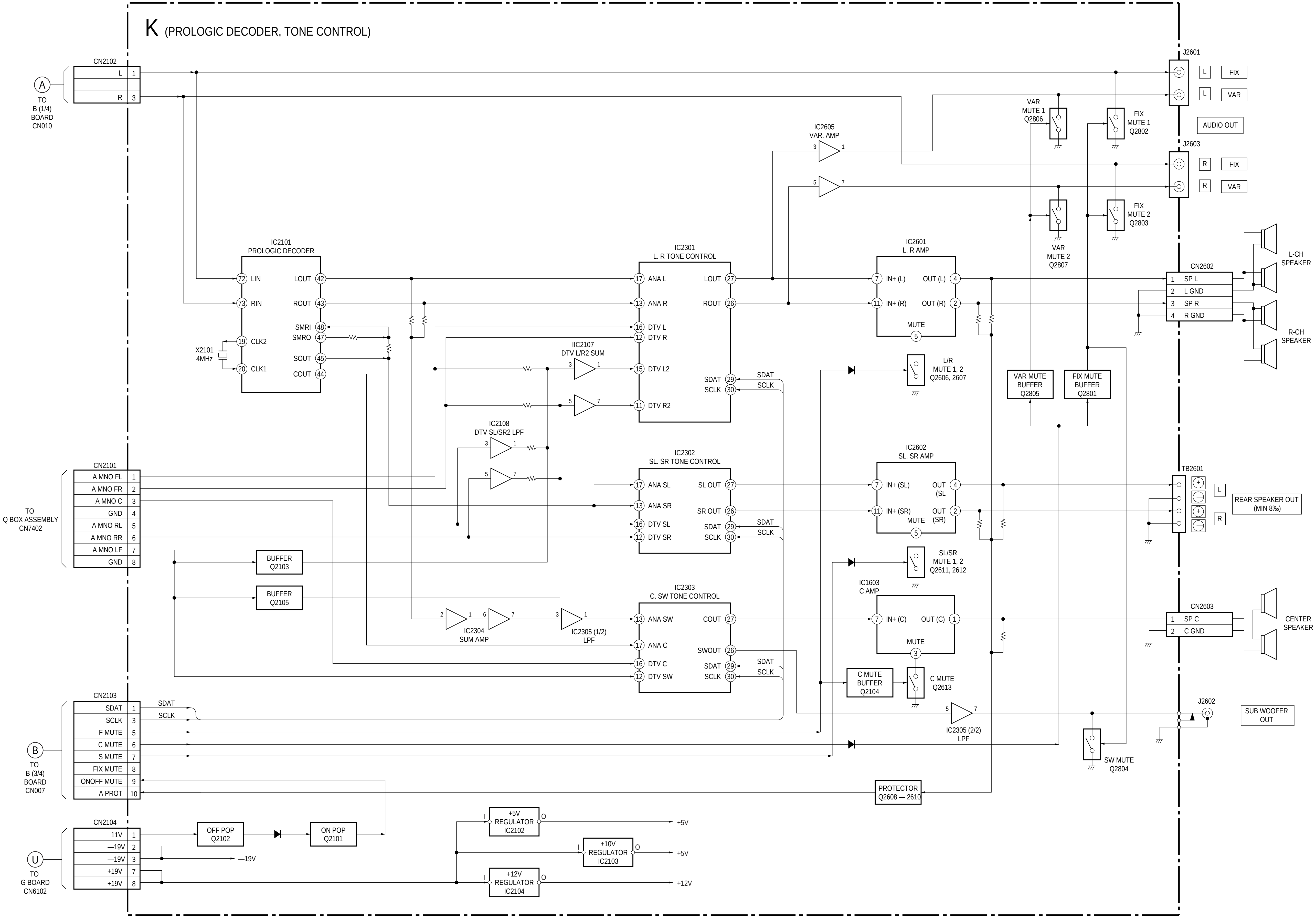
BLOCK DIAGRAM (7)


CN8005
BV 1
BH 2
GH 5
GV 4
RV 7
RF 8
H
TO A (2/2) BOARD CN3008
IC8002 CONV.OUT1
15 14 6 2 MUTE 18 16 11 13 9 7
IC8001 CONV.OUT1
15 14 6 2 MUTE 18 16 11 13 9 7
CN8010
2 BV OUT
3 BV RET
1 BH OUT
4 BH RET
CN8011
1 GH OUT
4 GH RET
2 GV OUT
3 GV RET
CN8012
2 RV OUT
3 RV RET
1 RH OUT
4 RH RET
DY(B)
V.DEF
V.MID
V.RET
DY (V)
SUB DY
H(+)F
H(MID)
H(–)
DY (H)
DY (G) SAME AS ABOVE
DY (R) SAME AS ABOVE
CN8006
V DRV(+) 3
V DRV(–) 5
VP 7
G2 MUTE VCC 1
G2 CNT 2
M
TO A (2/2) BOARD CN3005
IC8003 V OUT
7 1 5 3
BUFFER Q8001
CN8007
1 V DEF
3 V RET
CN8008
1 V DEF
3 V RET
CN8009
1 V DEF
3 V RET
D8005
G2-STOP /CONTROL Q8003
D8040
CN8003
G2 1
DF2 2
TO FOCUS PACK
D8002
T8001 DFT
8 4 6 2
DF H BUFF Q8008-8011, 8014,8015
DF V AMP Q8007
–22V
CN8004
DF 4
DF 6
H CENT 2
O
TO A (2/2) BOARD CN3006
D8012
3 2 1
BUFFER Q8039
CN8002
REGI MUTE 1
HV PROT 2
H DRV 10
HP 6
ABL 4
PIN(EW) 8
N
TO A (2/2) BOARD CN3007
BUFFER Q8004,8016
AMP Q8019,8020
T8020 HDT
+135V 6 7 4 3 2 1
H DRIVE Q8022,8030
H OUT Q8024
HP AMP Q8031,8101
CN8019
H OUT(B) 1
H RET(B) 4
CN8018
H OUT(G 1
H RET(G) 4
CN8020
H OUT(R) 1
H RET(R) 4
IC8009
5 1 2 3
IC8008 H DRIVE
9 ERR OUT
7 ERR IN
5 SLOW SW
18 VR REG
6 REF IN
1 HD IN
MIX+ 12
PWM OUT 3
MIX– 11
MIX OUT 10
D8022
VR8001
+135V
SWITCH Q8035
IC8007
3 2 1
D8008
D8023
5 6 7
Q8029
BUFFER Q8005,8032
Q8022
AMP Q8036,8037
Q8021
D8043
7 5 6 1 3 2
D8025
Q8028
D8038
VR8002
T8004 LOT
7 1 14 12 10 7
D8039
D+200V
+135V
D8037
T8005 FBT
1 6 HV MV 11
CN8016
3 HV REG
CN8022
1 200V
6 H(+)
7 H(–)
S
TO CB BOARD CN3901
CN8023
2 ΣIK 2
3 PROT ON/OFF
ΣIK CHECK
1 ΣIK 1
HV REG
HV BLOCK
HV R
HV G
HV B
TO PICTURE TUBE V901
TO PICTURE TUBE V902
TO PICTURE TUBE V903
FOCUS PACK
FV R
FV G
FV B
TO PICTURE TUBE V901
TO PICTURE TUBE V902
TO PICTURE TUBE V903
G2
G2
G2
TO CR BOARD CN3707
TO CG BOARD CN3809
TO CB BOARD CN3908
G2
DF2
TO D BOARD CN8003
IC8005 H.DRIVE
14 HD IN
6 7 9
V REC 9 18
5 3
Q8027
+135V
T8003 HOT
1 4 5 7 8
D8032
D8032
DF VCC
CN8013
–15V 1 –15V
+15V 3 +15V
–22V 4 –22V
+22V 6 +22V
135V 9 135V
T
TO G BOARD CN6106
D (H/V DEF, HV REG, D.F., CONVERGENCE OUT)

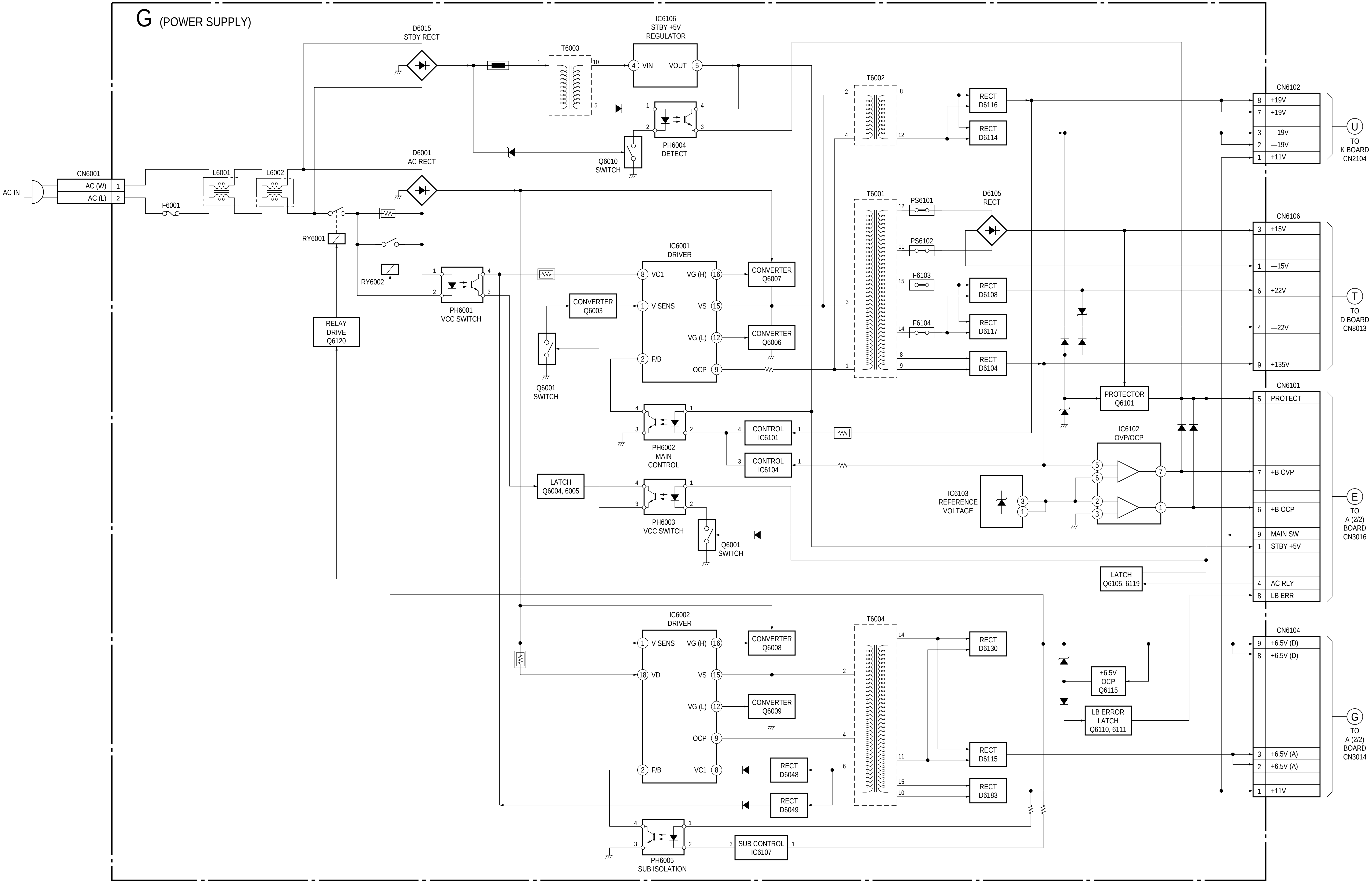
BLOCK DIAGRAM (8)


V (VM)
J
TO A (2/2) BOARD CN3001
CN9001
VM 4
BUFFER Q9001 — 9006
VM DRIVE Q9011
VM DRIVE Q9012
CN9002
6 VM
7 VM
8 VM
VM ASSY
V (VM)
K
TO A (2/2) BOARD CN3010
CN9001
VM 4
BUFFER Q9001 — 9006
VM DRIVE Q9011
VM DRIVE Q9012
CN9002
6 VM
7 VM
8 VM
VM ASSY
V (VM)
L
TO A (2/2) BOARD CN3023
CN9001
VM 4
BUFFER Q9001 — 9006
VM DRIVE Q9011
VM DRIVE Q9012
CN9002
6 VM
7 VM
8 VM
VM ASSY
HC (IR DETECTOR)
F
TO A (2/2) BOARD CN3018
CN1300
SIRCS 2
IR DETECTOR IC1300
HA (USER CONTROL)
D
TO A (2/2) BOARD CN3017
CN1100
KEY 3
TIMER LED 4
STBY/ST LED 5
ISTBY LED 6
P ON 7
S1100 — 1112
CN1101
P ON 2
ISBY LED 4
STBY/ST LED 5
TIMER LED 6
HD (POWER SW, LED)
POWER
S1350
+5V
CN1350
P ON 2
ISTBY LED 4
STBY/ST LED 5
TIMER LED 6
D1350
R
G
D1351
TIMER
STANDBY/I. LINK
CR (R CRT DRIVE)
CN3701
HEATER (—) 6
HEATER (+) 7
RS 8
H (—)
H (+)
G1
CN3702
IK 2
BUFFER Q3702
IC3701 VIDEO OUT
7 IK
2 VIN—
VOUT 12
TO A (2/2) BOARD CN3011
I
CN3703
IK 2
R 4
TO FOCUS PACK
CN3707
G2 1
G2
J3701
V901 PICTURE TUBE
FV R
HV R
TO FOCUS PACK
TO HV BLOCK
CG (G CRT DRIVE)
CN3801
HEATER (—) 6
HEATER (+) 7
RS 8
TO A (2/2) BOARD CN3019
P
CN3806
RS 1
BS 3
GS 5
G1
CN3802
HEATER (—) 6
HEATER (+) 7
BS 8
H (—)
H (+)
IC3801 VIDEO OUT
CN3803
IK 2
BUFFER Q3802
7 IK
CN3804
IK 2
VOUT 12
J3801
V902 PICTURE TUBE
TO A (2/2) BOARD CN3011
I
CN3805
G 2
2 VIN—
TO FOCUS PACK
CN3809
G2 2
G2
FV G
HV G
TO FOCUS PACK
TO HV BLOCK
CB (B CRT DRIVE)
CN3902
HEATER (—) 6
HEATER (+) 7
BS 8
G1
TO D BOARD CN8022
S
CN3901
HEATER (—) 6
HEATER (+) 7
H (—)
H (+)
IC3901 VIDEO OUT
CN3909
IK 2
BUFFER Q3902
7 IK
VOUT 12
J3901
V903 PICTURE TUBE
TO A (2/2) BOARD CN3011
I
CN3903
B 1
OFFSET 3
PEAK Q3901
2 VIN—
3 RC+
TO FOCUS PACK
CN3908
G2 1
G2
FV B
HV B
TO FOCUS PACK
TO HV BLOCK

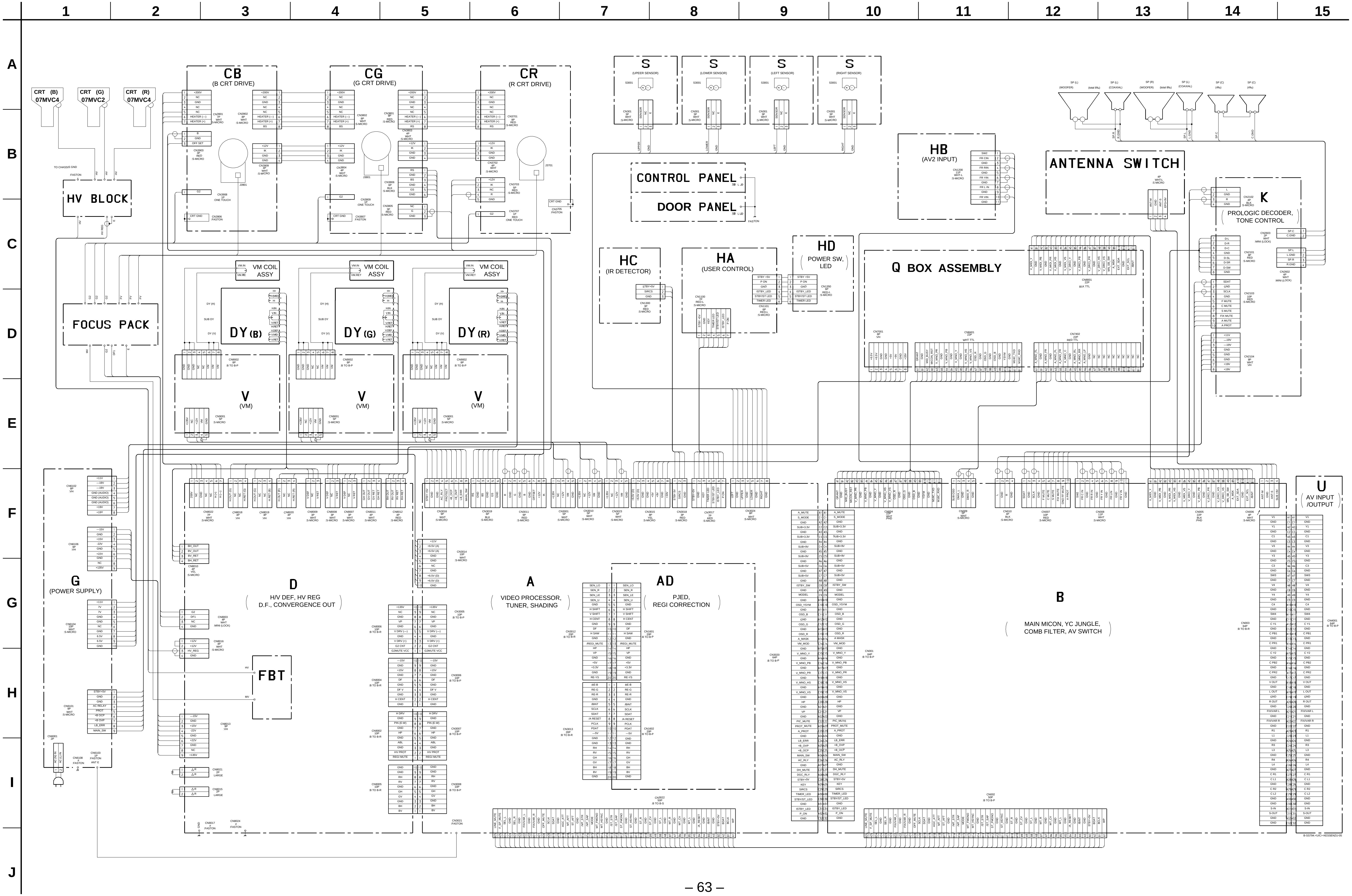
BLOCK DIAGRAM (9)


K (PROLOGIC DECODER, TONE CONTROL)
A
TO B (1/4) BOARD CN010
CN2102
L 1
R 3
CN2101
A MNO FL 1
A MNO FR 2
A MNO C 3
GND 4
A MNO RL 5
A MNO RR 6
A MNO LF 7
GND 8
TO Q BOX ASSEMBLY CN7402
B
TO B (3/4) BOARD CN007
CN2103
SDAT 1
SCLK 3
F MUTE 5
C MUTE 6
S MUTE 7
FIX MUTE 8
ONOFF MUTE 9
A PROT 10
SDAT
SCLK
U
TO G BOARD CN6102
CN2104
11V 1
—19V 2
—19V 3
+19V 7
+19V 8
—19V
IC2101 PROLOGIC DECODER
LIN 72
RIN 73
CLK2 19
CLK1 20
X2101 4MHz
LOUT 42
ROUT 43
SMRI 48
SMRO 47
SOUT 45
COUT 44
IIC2107 DTV L/R2 SUM
IC2108 DTV SL/SR2 LPF
BUFFER Q2103
BUFFER Q2105
IC2304 SUM AMP
IC2305 (1/2) LPF
IC2301 L. R TONE CONTROL
ANA L 17
ANA R 13
DTV L 16
DTV R 12
DTV L2 15
DTV R2 11
LOUT 27
ROUT 26
SDAT 29
SCLK 30
IC2302 SL. SR TONE CONTROL
ANA SL 17
ANA SR 13
DTV SL 16
DTV SR 12
SL OUT 27
SR OUT 26
SDAT 29
SCLK 30
IC2303 C. SW TONE CONTROL
ANA SW 13
ANA C 17
DTV C 16
DTV SW 12
COUT 27
SWOUT 26
SDAT 29
SCLK 30
SDAT
SCLK
IC2605 VAR. AMP
IC2601 L. R AMP
IN+ (L) 7
IN+ (R) 11
OUT (L) 4
OUT (R) 2
MUTE 5
L/R MUTE 1, 2 Q2606, 2607
IC2602 SL. SR AMP
IN+ (SL) 7
IN+ (SR) 11
OUT (SL) 4
OUT (SR) 2
MUTE 5
SL/SR MUTE 1, 2 Q2611, 2612
IC1603 C AMP
IN+ (C) 7
OUT (C) 1
MUTE 3
C MUTE BUFFER Q2104
C MUTE Q2613
IC2305 (2/2) LPF
PROTECTOR Q2608 — 2610
OFF POP Q2102
ON POP Q2101
+5V REGULATOR IC2102
+10V REGULATOR IC2103
+12V REGULATOR IC2104
I
O
+5V
+5V
+12V
VAR MUTE 1 Q2806
FIX MUTE 1 Q2802
VAR MUTE 2 Q2807
FIX MUTE 2 Q2803
VAR MUTE BUFFER Q2805
FIX MUTE BUFFER Q2801
SW MUTE Q2804
J2601
L FIX
L VAR
AUDIO OUT
J2603
R FIX
R VAR
CN2602
1 SP L
2 L GND
3 SP R
4 R GND
L-CH SPEAKER
R-CH SPEAKER
TB2601
L
R
REAR SPEAKER OUT (MIN 8‰)
CN2603
1 SP C
2 C GND
CENTER SPEAKER
J2602
SUB WOOFER OUT

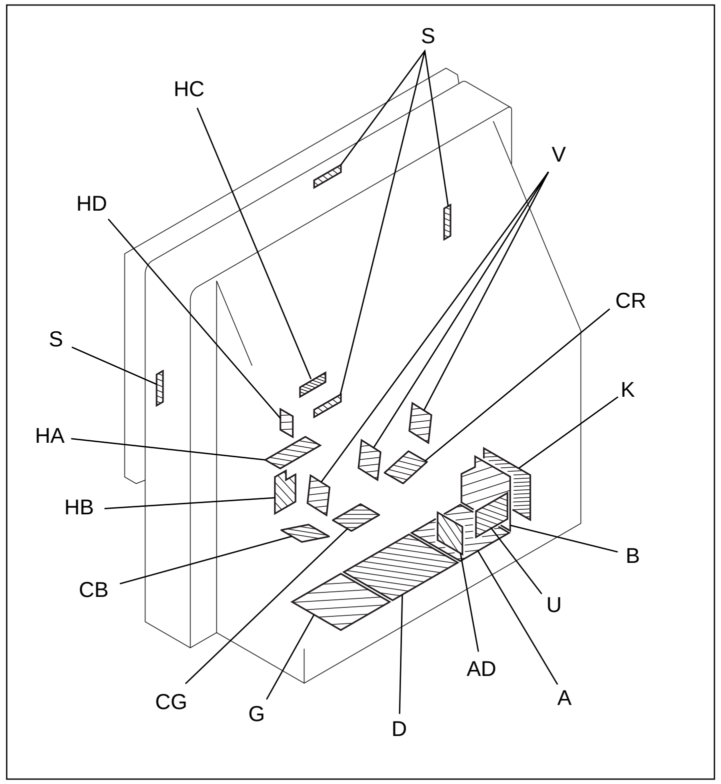
BLOCK DIAGRAM (10)


G (POWER SUPPLY)
AC IN
CN6001
AC (W) 1
AC (L) 2
F6001
L6001
L6002
RY6001
RY6002
RELAY DRIVE Q6120
D6015 STBY RECT
T6003
IC6106 STBY +5V REGULATOR
4 VIN
VOUT 5
PH6004 DETECT
Q6010 SWITCH
D6001 AC RECT
PH6001 VCC SWITCH
CONVERTER Q6003
Q6001 SWITCH
IC6001 DRIVER
8 VC1
1 V SENS
2 F/B
VG (H) 16
VS 15
VG (L) 12
OCP 9
CONVERTER Q6007
CONVERTER Q6006
PH6002 MAIN CONTROL
CONTROL IC6101
CONTROL IC6104
LATCH Q6004, 6005
PH6003 VCC SWITCH
Q6001 SWITCH
T6002
RECT D6116
RECT D6114
T6001
PS6101
PS6102
F6103
F6104
D6105 RECT
RECT D6108
RECT D6117
RECT D6104
PROTECTOR Q6101
IC6102 OVP/OCP
IC6103 REFERENCE VOLTAGE
LATCH Q6105, 6119
CN6102
8 +19V
7 +19V
3 —19V
2 —19V
1 +11V
U TO K BOARD CN2104
CN6106
3 +15V
1 —15V
6 +22V
4 —22V
9 +135V
T TO D BOARD CN8013
CN6101
5 PROTECT
7 +B OVP
6 +B OCP
9 MAIN SW
1 STBY +5V
4 AC RLY
8 LB ERR
E TO A (2/2) BOARD CN3016
IC6002 DRIVER
1 V SENS
18 VD
2 F/B
VG (H) 16
VS 15
VG (L) 12
OCP 9
VC1 8
CONVERTER Q6008
CONVERTER Q6009
RECT D6048
RECT D6049
PH6005 SUB ISOLATION
SUB CONTROL IC6107
T6004
RECT D6130
RECT D6115
RECT D6183
+6.5V OCP Q6115
LB ERROR LATCH Q6110, 6111
CN6104
9 +6.5V (D)
8 +6.5V (D)
3 +6.5V (A)
2 +6.5V (A)
1 +11V
G TO A (2/2) BOARD CN3014

7-2. FRAME SCHEMATIC DIAGRAM


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
CRT (B) 07MVC4
CRT (G) 07MVC2
CRT (R) 07MVC4
CB (B CRT DRIVE)
CG (G CRT DRIVE)
CR (R CRT DRIVE)
S (UPPER SENSOR)
S (LOWER SENSOR)
S (LEFT SENSOR)
S (RIGHT SENSOR)
HV BLOCK
CONTROL PANEL
DOOR PANEL
HB (AV2 INPUT)
ANTENNA SWITCH
K (PROLOGIC DECODER, TONE CONTROL)
VM COIL ASSY
FOCUS PACK
DY (B)
DY (G)
DY (R)
V (VM)
HC (IR DETECTOR)
HA (USER CONTROL)
HD (POWER SW, LED)
Q BOX ASSEMBLY
U (AV INPUT /OUTPUT)
G (POWER SUPPLY)
D (H/V DEF, HV REG D.F., CONVERGENCE OUT)
A (VIDEO PROCESSOR, TUNER, SHADING)
AD (PJED, REGI CORRECTION)
B (MAIN MICON, YC JUNGLE, COMB FILTER, AV SWITCH)
FBT

7-3. CIRCUIT BOARDS LOCATION



7-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

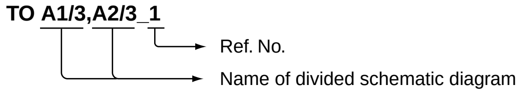
- The parts marked "#" on schematic diagrams are not mounted.
- All capacitors are in μF unless otherwise noted. (pF: μμF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm
Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- —▭— : nonflammable resistor.
- —▭— : fusible resistor.
- △ : internal component.
- ▭ : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊥ : earth-ground.
- ⏚ : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 M digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- Circled numbers are waveform references.
- ▭ : B + bus.
- ▭ : B – bus.
- ⇨ : Signal path.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. (See page 51)
- When replacing the part in below table, be sure to perform the related adjustment.

Part Replaced (◪)	Adjustment (⧓)
C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV Block, D Board	VR8001 (HV Regulator)
C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV Block, D Board	VR8002 (HV Hold-Down)

- Divided schematic diagram
  Schematic diagrams of A, AD, B, D, G and K boards are divided into several pieces. Information to where the line is to be connected is printed at the end of each line.
  For example, [**TO A1/3,A2/3_1**] means the line is connected to Ref. No. 1 of A (1/3) and A (2/3) schematic diagrams.



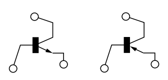
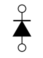
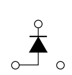
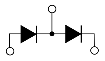
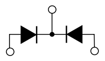
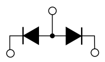
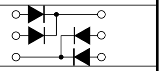
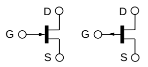
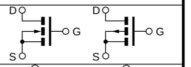
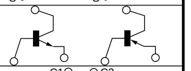
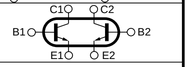
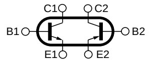
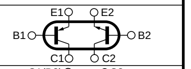
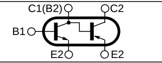
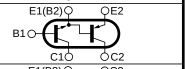
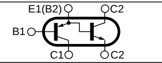
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

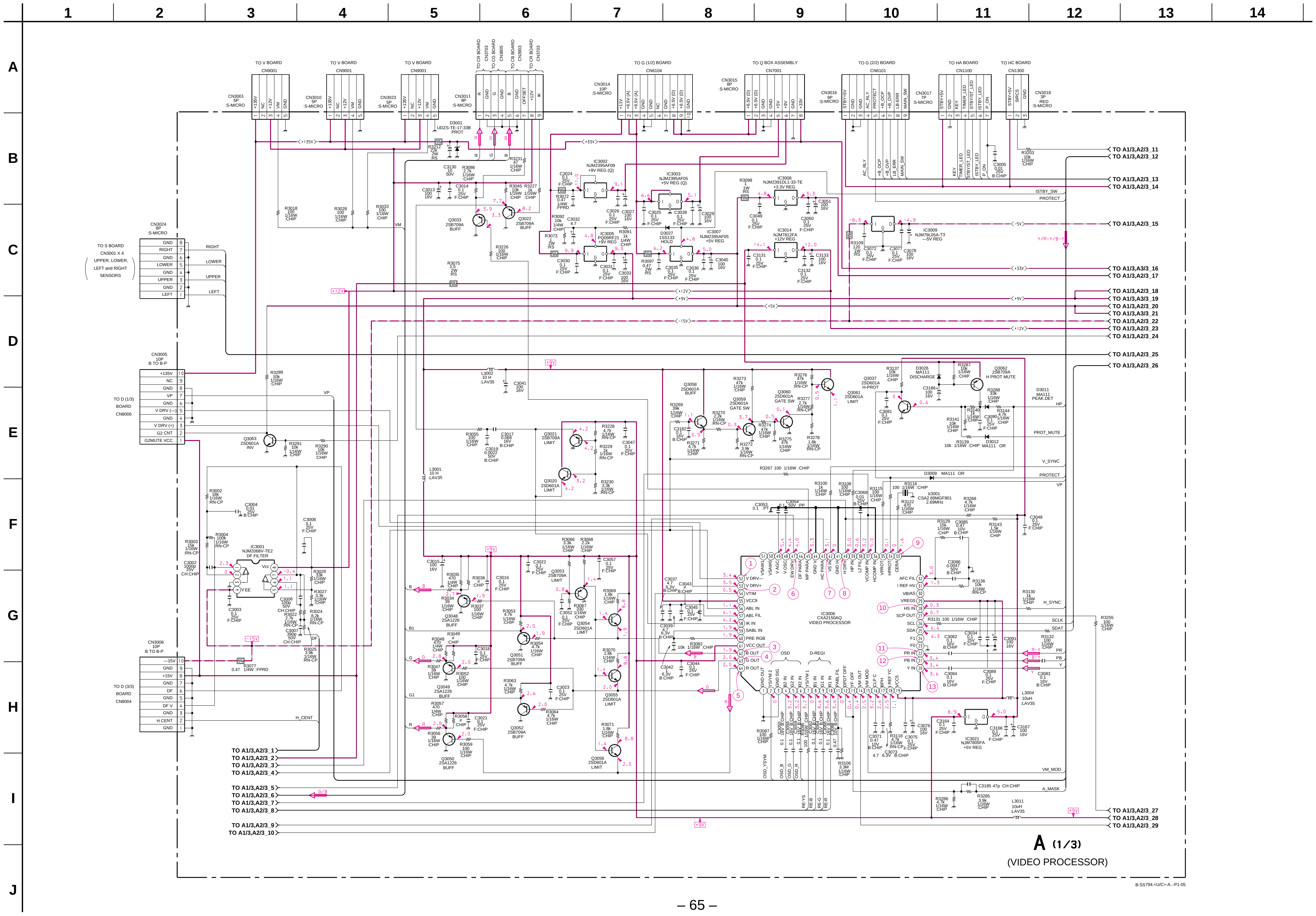
Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	┳	Collector Base ┳ Emitter	
②	Transistor	▬	Collector Base ▬ Emitter	
③	Diode	╤	Cathode Anode	
④	Diode	┳	Cathode Anode ┳ (NC)	
⑤	Diode	▬	Cathode Anode ▬ (NC)	
⑥	Diode	┳	Common Anode ┳ Cathode	
⑦	Diode	▬	Common Anode ▬ Cathode	
⑧	Diode	┳	Common Anode ┳ Anode	
⑨	Diode	▬	Common Anode ▬ Anode	
⑩	Diode	┳	Common Cathode ┳ Cathode	
⑪	Diode	▬	Common Cathode ▬ Cathode	
⑫	Diode	┃	Anode ┃ Cathode Anode ┃ Anode Cathode ┃ Anode	
⑬	Transistor (FET)	┃	Drain ┃ Source Gate	
⑭	Transistor (FET)	┣	Drain ┣ Source Gate	
⑮	Transistor (FET)	┃	▯┃ ☐ Source ☐ Drain ☐ Gate	
⑯	Transistor	┃	▯┃ ☐ Emitter ☐ Collector ☐ Base	
⑰	Transistor	╪	C2 B1 E1 E2 B2 C1	
⑱	Transistor	╪	C1 B2 E2 E1 B1 C2	
⑲	Transistor	▬	C1 B2 E2 E1 B1 C2	
⑳	Transistor	▬	C1 B2 E2 E1 B1 C2	
㉑	Transistor	▬	E2 B1 E1 C2 C1(B2)	
㉒	Transistor	▬	(B2) B1 E1 E2 C1 C2	
㉓	Transistor	▬	(B2) E2 E1 B1 C2 C1	
–	Discrete semiconductot			

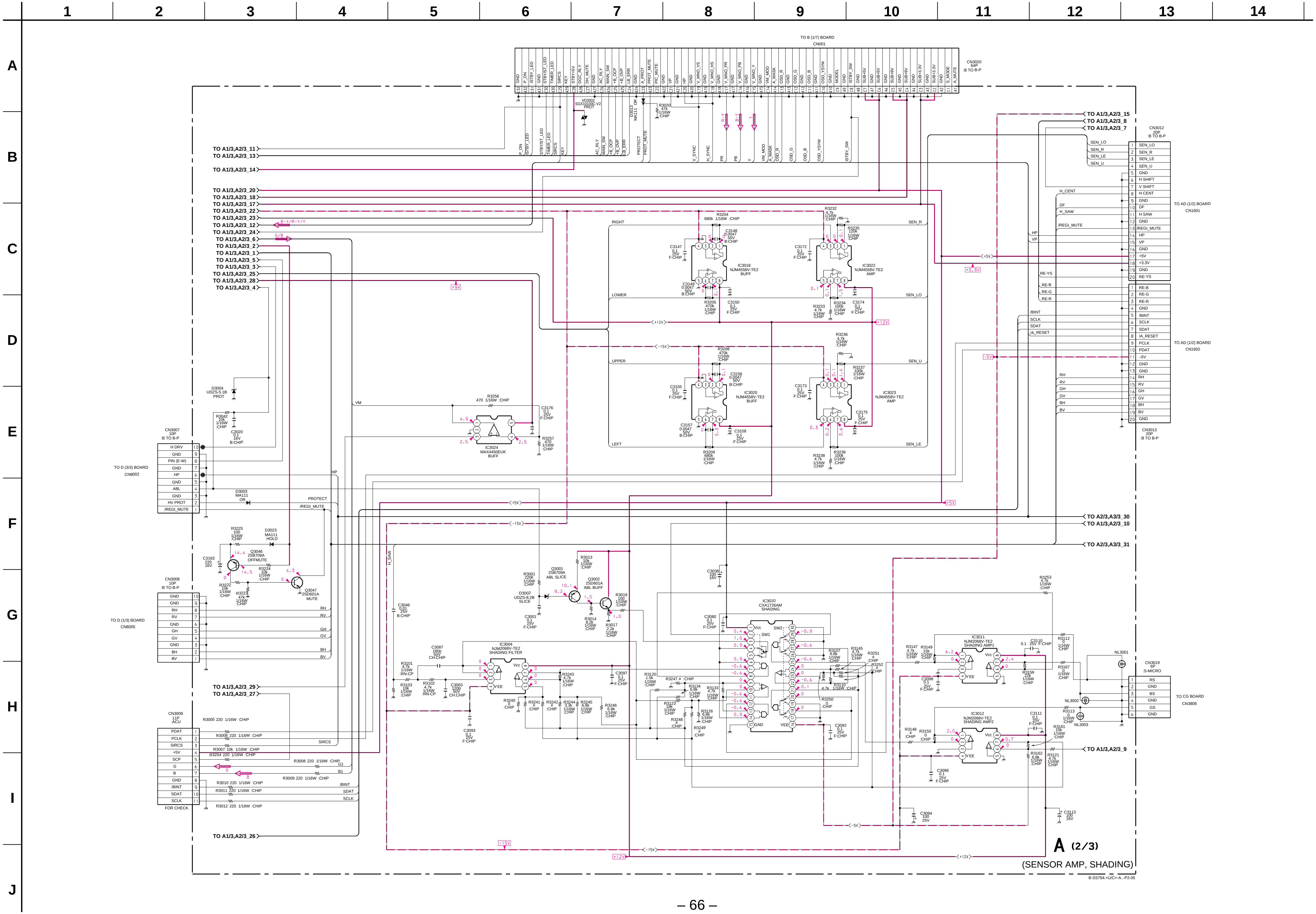
(Chip semiconductors that are not actually used are included.)

Ver.1.5

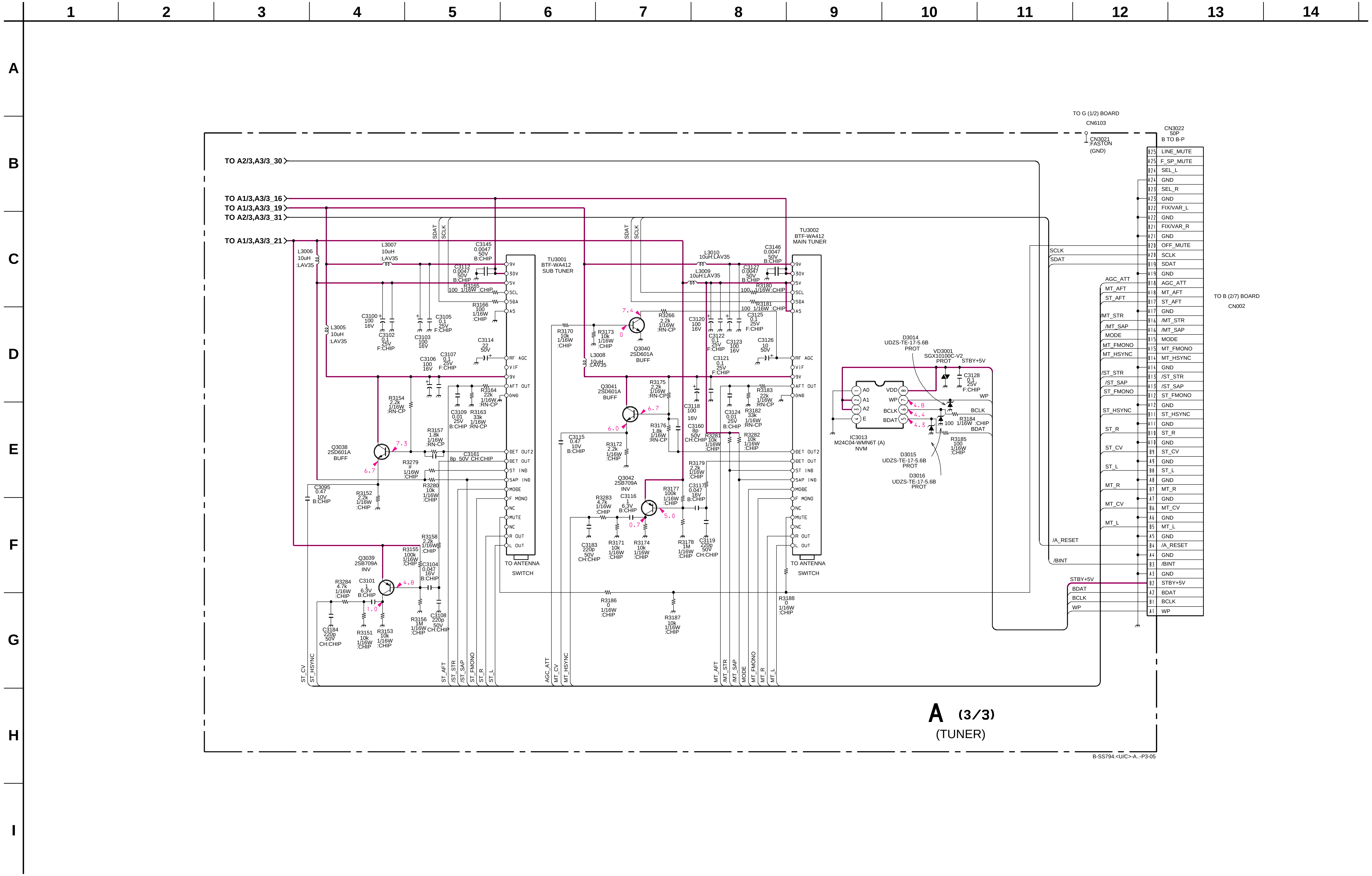
(1) Schematic Diagram of A (1/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
TO V BOARD CN9001
TO V BOARD CN9001
TO V BOARD CN9001
TO CR BOARD CN3703
TO CG BOARD CN3805
TO CB BOARD CN3903
TO CR BOARD CN3703
TO G (1/2) BOARD CN6104
TO Q BOX ASSEMBLY CN7001
TO G (2/2) BOARD CN6101
TO HA BOARD CN1100
TO HC BOARD CN1300
CN3001 5P :S-MICRO
CN3010 5P :S-MICRO
CN3023 5P :S-MICRO
CN3011 9P :S-MICRO
CN3014 10P :S-MICRO
CN3015 8P :S-MICRO
CN3016 9P :S-MICRO
CN3017 7P :S-MICRO
CN3018 3P RED :S-MICRO
CN3024 8P :S-MICRO
TO S BOARD CN3001 X 4
UPPER, LOWER, LEFT and RIGHT SENSORS
CN3005 10P :B TO B-P
TO D (1/3) BOARD CN8006
CN3006 10P :B TO B-P
TO D (3/3) BOARD CN8004
D3001 UDZS-TE-17-33B PROT
IC3002 NJM2395AF09 +9V REG (Q)
IC3003 NJM2395AF05 +5V REG (Q)
IC3008 NJM2391DL1-33-TE +3.3V REG
IC3005 PQ09RF21 +9V REG
IC3007 NJM2395AF05 +5V REG
IC3014 NJM7812FA +12V REG
IC3009 NJM79L05A-T3 —5V REG
D3027 1SS133 HOLD
Q3033 2SB709A BUFF
Q3022 2SB709A BUFF
IC3001 NJM2068V-TE2 DF FILTER
Q3063 2SD601A INV
Q3021 2SB709A LIMIT
Q3020 2SD601A LIMIT
Q3058 2SD601A BUFF
Q3059 2SD601A GATE SW
Q3060 2SD601A GATE SW
Q3037 2SD601A H-PROT
Q3061 2SD601A LIMIT
Q3062 2SB709A H PROT MUTE
D3026 MA111 DISCHARGE
D3011 MA111 PEAK DET
D3012 MA111 OR
D3009 MA111 OR
X3001 CSA2.69MGF901 2.69MHz
IC3006 CXA2150AQ VIDEO PROCESSOR
Q3048 2SA1226 BUFF
Q3049 2SA1226 BUFF
Q3050 2SA1226 BUFF
Q3051 2SB709A BUFF
Q3052 2SB709A BUFF
Q3053 2SB709A LIMIT
Q3054 2SD601A LIMIT
Q3055 2SD601A LIMIT
Q3056 2SD601A LIMIT
IC3021 NJM7805FA +5V REG
L3001 10 H :LAV35
L3002 10 H :LAV35
L3004 10uH :LAV35
L3011 10uH :LAV35
TO A1/3,A2/3_1
TO A1/3,A2/3_2
TO A1/3,A2/3_3
TO A1/3,A2/3_4
TO A1/3,A2/3_5
TO A1/3,A2/3_6
TO A1/3,A2/3_7
TO A1/3,A2/3_8
TO A1/3,A2/3_9
TO A1/3,A2/3_10
TO A1/3,A2/3_11
TO A1/3,A2/3_12
TO A1/3,A2/3_13
TO A1/3,A2/3_14
TO A1/3,A2/3_15
TO A1/3,A3/3_16
TO A1/3,A2/3_17
TO A1/3,A2/3_18
TO A1/3,A3/3_19
TO A1/3,A2/3_20
TO A1/3,A3/3_21
TO A1/3,A2/3_22
TO A1/3,A2/3_23
TO A1/3,A2/3_24
TO A1/3,A2/3_25
TO A1/3,A2/3_26
TO A1/3,A2/3_27
TO A1/3,A2/3_28
TO A1/3,A2/3_29
A (1/3)
(VIDEO PROCESSOR)
B-SS794.<U/C>-A..-P1-05

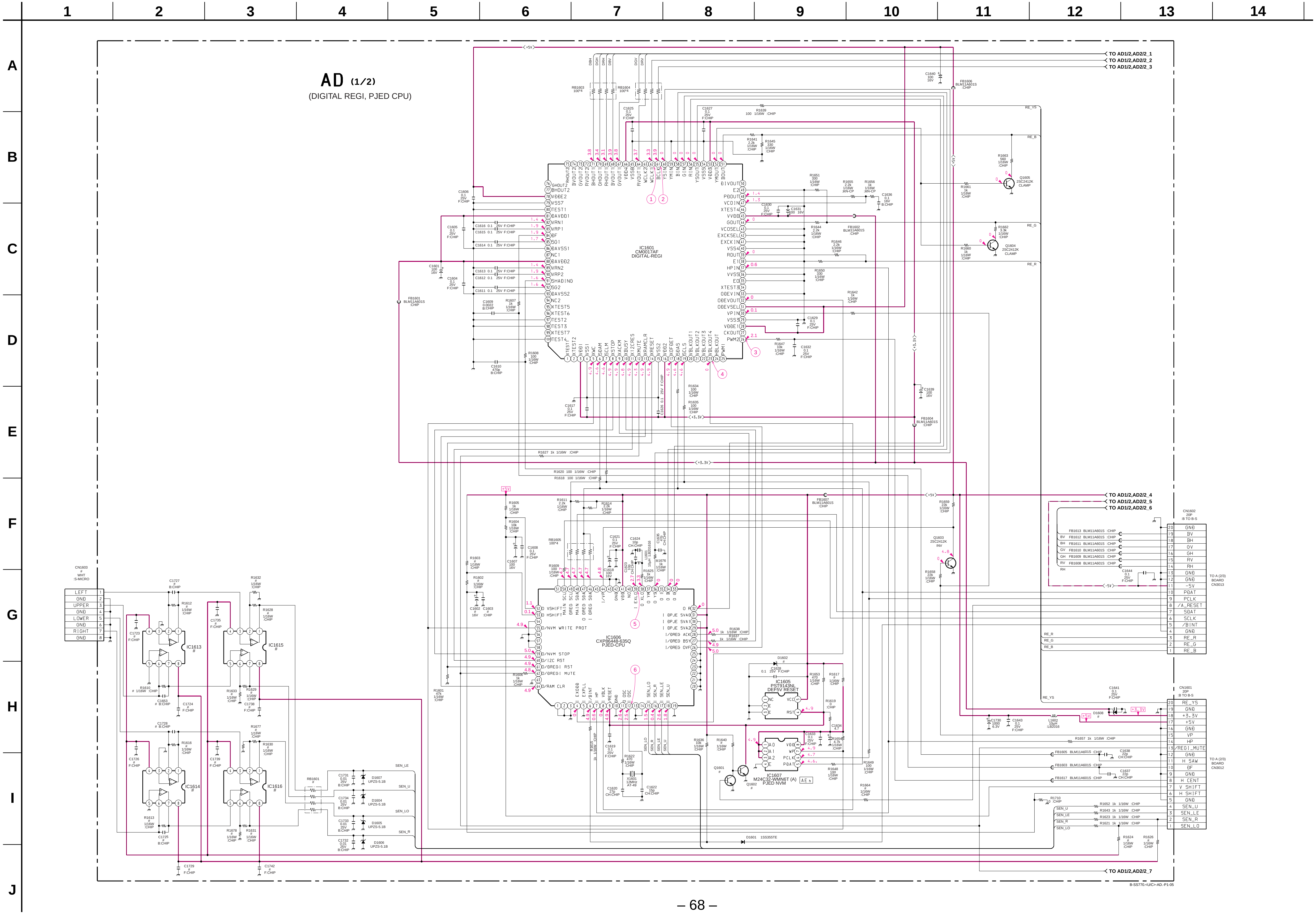
(2) Schematic Diagram of A (2/3) Board


TO B (1/7) BOARD
CN001
CN3020
64P
:B TO B-P
IC3018
NJM4558V-TE2
BUFF
IC3022
NJM4558V-TE2
AMP
IC3020
NJM4558V-TE2
BUFF
IC3023
NJM4558V-TE2
AMP
IC3024
MAX4450EUK
BUFF
IC3010
CXA1726AM
SHADING
IC3004
NJM2068V-TE2
SHADING FILTER
IC3011
NJM2068V-TE2
SHADING AMP1
IC3012
NJM2068V-TE2
SHADING AMP2
Q3046
2SB709A
OFFMUTE
Q3047
2SD601A
MUTE
Q3001
2SB709A
ABL SLICE
Q3002
2SD601A
ABL BUFF
D3004
UDZS-5.1B
PROT
D3003
MA111
OR
D3023
MA111
HOLD
D3002
UDZS-8.2B
SLICE
VD3002
SGX10100C-V2
PROT
CN3007
10P
:B TO B-P
TO D (3/3) BOARD
CN8002
H DRV
GND
PIN (E-W)
GND
HP
GND
ABL
GND
HV PROT
/REGI_MUTE
CN3008
10P
:B TO B-P
TO D (1/3) BOARD
CN8005
GND
GND
RH
RV
GND
GH
GV
GND
BH
BV
CN3009
11P
:ACU
PDAT
PCLK
SIRCS
+5V
SCP
G
B
GND
/BINT
SDAT
SCLK
FOR CHECK
CN3012
20P
:B TO B-P
TO AD (1/2) BOARD
CN1601
SEN_LO
SEN_R
SEN_LE
SEN_U
GND
H SHIFT
V SHIFT
H CENT
GND
DF
H SAW
GND
/REGI_MUTE
HP
VP
GND
+5V
+3.3V
GND
RE-YS
CN3013
20P
:B TO B-P
TO AD (1/2) BOARD
CN1602
RE-B
RE-G
RE-R
GND
/BINT
SCLK
SDAT
/A_RESET
PCLK
PDAT
-5V
GND
GND
RH
RV
GH
GV
BH
BV
GND
CN3019
6P
:S-MICRO
TO CG BOARD
CN3806
RS
GND
BS
GND
GS
GND
TO A1/3,A2/3_11
TO A1/3,A2/3_13
TO A1/3,A2/3_14
TO A1/3,A2/3_20
TO A1/3,A2/3_18
TO A1/3,A2/3_17
TO A1/3,A2/3_22
TO A1/3,A2/3_23
TO A1/3,A2/3_12
TO A1/3,A2/3_24
TO A1/3,A2/3_6
TO A1/3,A2/3_2
TO A1/3,A2/3_1
TO A1/3,A2/3_5
TO A1/3,A2/3_3
TO A1/3,A2/3_25
TO A1/3,A2/3_28
TO A1/3,A2/3_4
TO A1/3,A2/3_29
TO A1/3,A2/3_27
TO A1/3,A2/3_26
TO A1/3,A2/3_15
TO A1/3,A2/3_8
TO A1/3,A2/3_7
TO A2/3,A3/3_30
TO A1/3,A2/3_10
TO A2/3,A3/3_31
TO A1/3,A2/3_9
RIGHT
LOWER
UPPER
LEFT
SEN_R
SEN_LO
SEN_U
SEN_LE
PROTECT
/REGI_MUTE
SIRCS
H_SAW
H_CENT
DF
+5V
+12V
-15V
-5V
+9V
A (2/3)
(SENSOR AMP, SHADING)
B-SS794 <U/C>-A.-P2-05

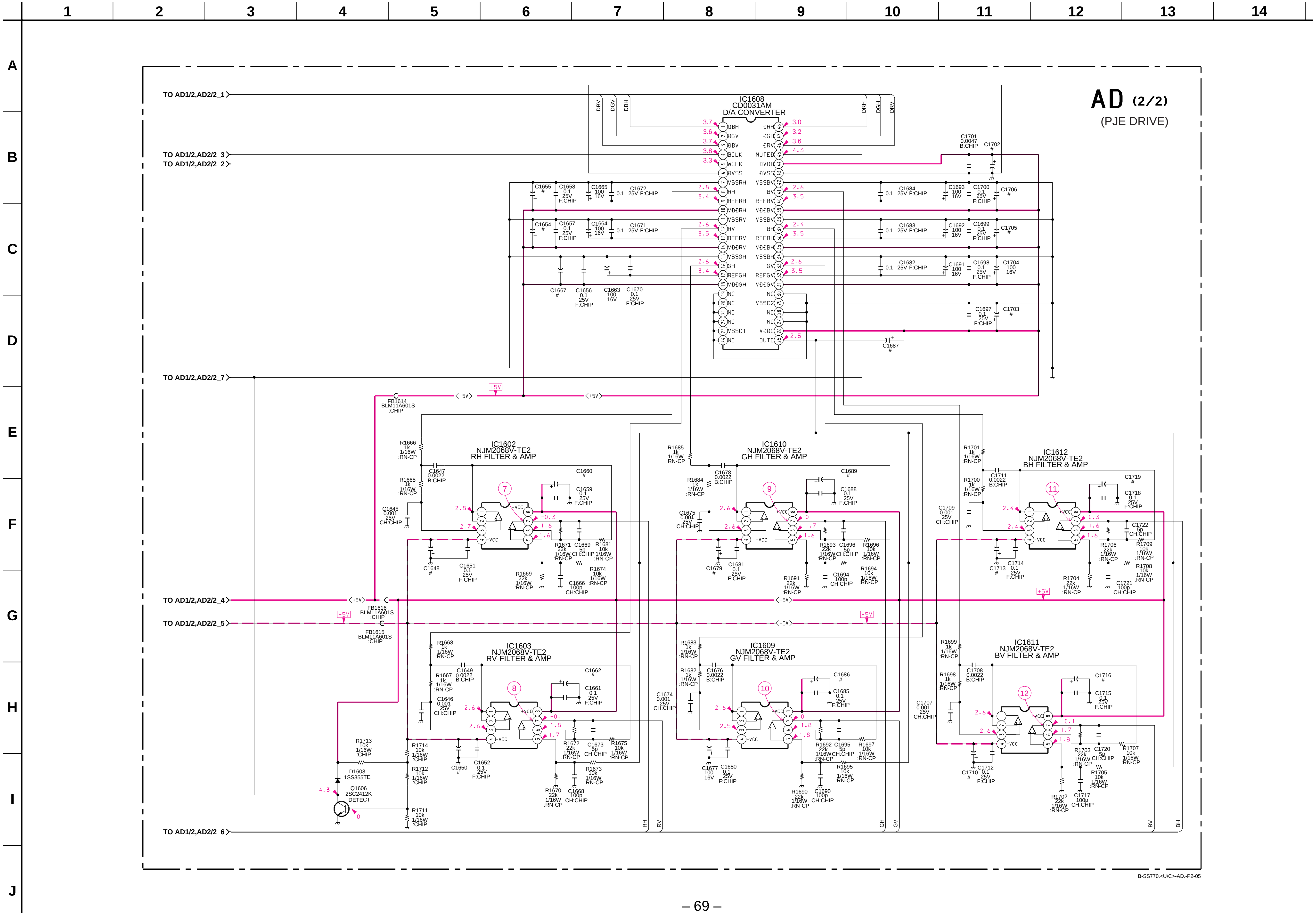
(3) Schematic Diagram of A (3/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
TO A2/3,A3/3_30
TO A1/3,A3/3_16
TO A1/3,A3/3_19
TO A2/3,A3/3_31
TO A1/3,A3/3_21
L3006 10uH :LAV35
L3007 10uH :LAV35
L3005 10uH :LAV35
C3145 0.0047 50V B:CHIP
C3112 0.0047 50V B:CHIP
R3165 100 1/16W :CHIP
R3166 100 1/16W :CHIP
C3100 100 16V
C3102 0.1 25V F:CHIP
C3103 100 16V
C3105 0.1 25V F:CHIP
C3114 22 50V
C3106 100 16V
C3107 0.1 25V F:CHIP
R3164 22k 1/16W :RN-CP
R3154 2.2k 1/16W :RN-CP
C3109 0.01 25V B:CHIP
R3163 33k 1/16W :RN-CP
R3157 1.8k 1/16W :RN-CP
Q3038 2SD601A BUFF
C3161 8p 50V CH:CHIP
R3279 # 1/16W :CHIP
R3280 10k 1/16W :CHIP
C3095 0.47 10V B:CHIP
R3152 2.2k 1/16W :CHIP
R3158 2.2k 1/16W :CHIP
R3155 100k 1/16W :CHIP
C3104 0.047 16V B:CHIP
Q3039 2SB709A INV
R3284 4.7k 1/16W :CHIP
C3101 1 6.3V B:CHIP
C3184 220p 50V CH:CHIP
R3151 10k 1/16W :CHIP
R3153 10k 1/16W :CHIP
R3156 1M 1/16W :CHIP
C3108 220p 50V CH:CHIP
7.3
6.7
4.8
1.0
SDAT
SCLK
TU3001 BTF-WA412 SUB TUNER
9V
30V
5V
SCL
SDA
AS
RF AGC
VIF
AFT OUT
GND
DET OUT2
DET OUT
ST IND
SAP IND
MODE
F MONO
NC
MUTE
R OUT
L OUT
TO ANTENNA SWITCH
R3170 10k 1/16W :CHIP
R3173 10k 1/16W :CHIP
7.4
0
R3266 2.2k 1/16W :RN-CP
Q3040 2SD601A BUFF
L3008 10uH :LAV35
Q3041 2SD601A BUFF
R3175 2.2k 1/16W :RN-CP
6.7
6.0
R3176 1.8k 1/16W :RN-CP
C3115 0.47 10V B:CHIP
R3172 2.2k 1/16W :CHIP
Q3042 2SB709A INV
R3283 4.7k 1/16W :CHIP
C3116 1 6.3V B:CHIP
R3177 100k 1/16W :CHIP
C3117 0.047 16V B:CHIP
0.7
5.0
C3183 220p 50V CH:CHIP
R3171 10k 1/16W :CHIP
R3174 10k 1/16W :CHIP
R3178 1M 1/16W :CHIP
C3119 220p 50V CH:CHIP
R3186 0 1/16W :CHIP
R3187 10k 1/16W :CHIP
L3010 10uH:LAV35
L3009 10uH:LAV35
C3146 0.0047 50V B:CHIP
C3127 0.0047 50V B:CHIP
R3180 100 1/16W :CHIP
R3181 100 1/16W :CHIP
C3120 100 16V
C3122 0.1 25V F:CHIP
C3123 100 16V
C3125 0.1 25V F:CHIP
C3126 10 50V
C3121 0.1 25V F:CHIP
C3118 100 16V
C3160 8p 50V CH:CHIP
R3281 10k 1/16W :CHIP
C3124 0.01 25V B:CHIP
R3182 33k 1/16W :RN-CP
R3183 22k 1/16W :RN-CP
R3282 10k 1/16W :CHIP
R3179 2.2k 1/16W :CHIP
R3188 0 1/16W :CHIP
TU3002 BTF-WA412 MAIN TUNER
D3014 UDZS-TE-17-5.6B PROT
VD3001 SGX10100C-V2 PROT
STBY+5V
C3128 0.1 25V F:CHIP
A0
A1
A2
E
VDD
WP
BCLK
BDAT
4.8
4.4
4.3
R3184 100 1/16W :CHIP
R3185 100 1/16W :CHIP
IC3013 M24C04-WMN6T (A) NVM
D3015 UDZS-TE-17-5.6B PROT
D3016 UDZS-TE-17-5.6B PROT
TO G (1/2) BOARD CN6103
CN3021 :FASTON (GND)
CN3022 50P B TO B-P
TO B (2/7) BOARD CN002
B25 LINE_MUTE
A25 F_SP_MUTE
B24 SEL_L
A24 GND
B23 SEL_R
A23 GND
B22 FIX/VAR_L
A22 GND
B21 FIX/VAR_R
A21 GND
B20 OFF_MUTE
A20 SCLK
B19 SDAT
A19 GND
B18 AGC_ATT
A18 MT_AFT
B17 ST_AFT
A17 GND
B16 /MT_STR
A16 /MT_SAP
B15 MODE
A15 MT_FMONO
B14 MT_HSYNC
A14 GND
B13 /ST_STR
A13 /ST_SAP
B12 ST_FMONO
A12 GND
B11 ST_HSYNC
A11 GND
B10 ST_R
A10 GND
B9 ST_CV
A9 GND
B8 ST_L
A8 GND
B7 MT_R
A7 GND
B6 MT_CV
A6 GND
B5 MT_L
A5 GND
B4 /A_RESET
A4 GND
B3 /BINT
A3 GND
B2 STBY+5V
A2 BDAT
B1 BCLK
A1 WP
ST_CV
ST_HSYNC
ST_AFT
/ST_STR
/ST_SAP
ST_FMONO
ST_R
ST_L
AGC_ATT
MT_CV
MT_HSYNC
MT_AFT
/MT_STR
/MT_SAP
MODE
MT_FMONO
MT_R
MT_L
A (3/3)
(TUNER)
B-SS794.<U/C>-A..-P3-05

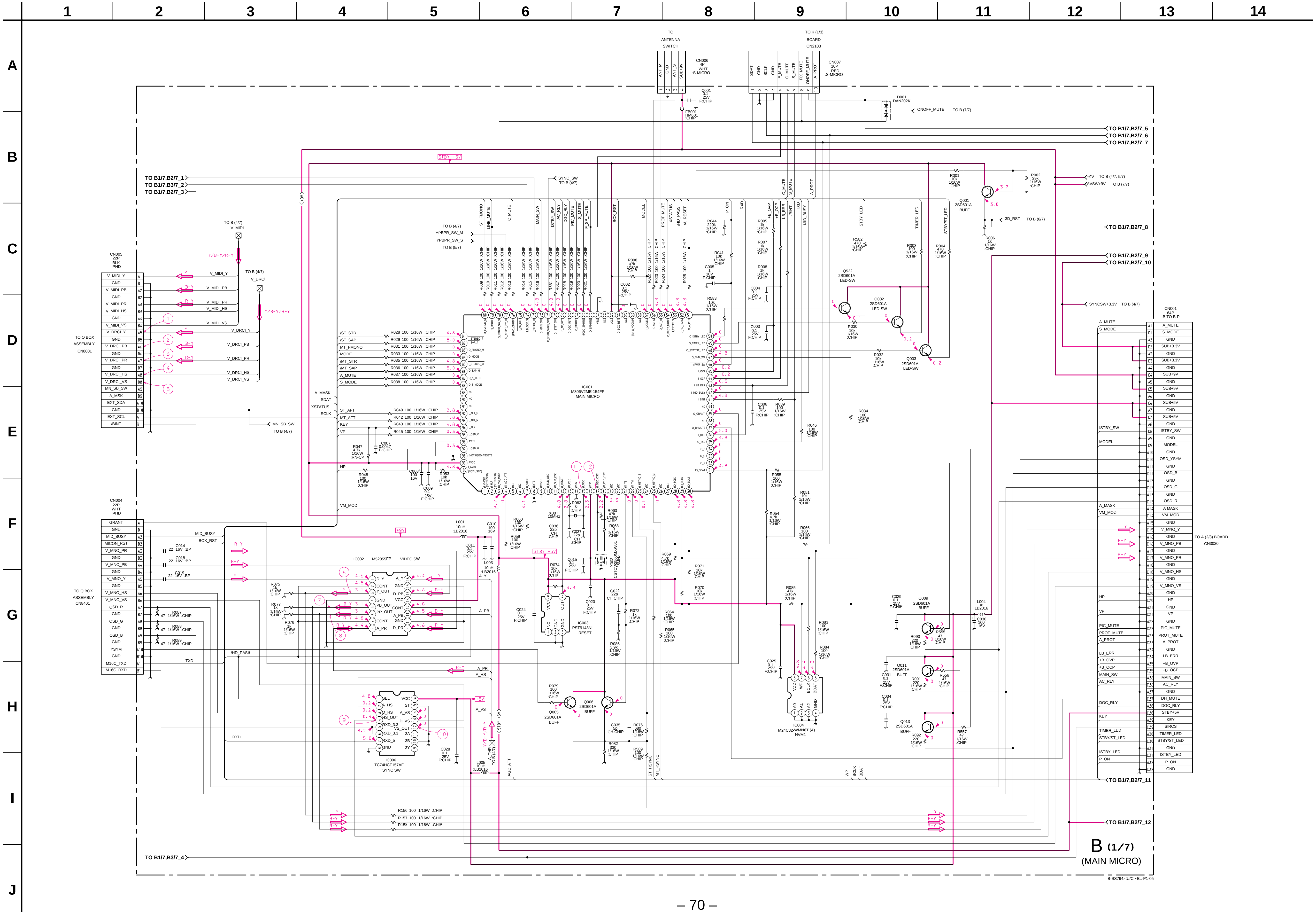
(4) Schematic Diagram of AD (1/2) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
AD (1/2)
(DIGITAL REGI, PJED CPU)
TO AD1/2,AD2/2_1
TO AD1/2,AD2/2_2
TO AD1/2,AD2/2_3
TO AD1/2,AD2/2_4
TO AD1/2,AD2/2_5
TO AD1/2,AD2/2_6
TO AD1/2,AD2/2_7
IC1601
CM0017AF
DIGITAL-REGI
IC1606
CXP86448-635Q
PJED-CPU
IC1605
PST9143NL
DEF5V RESET
IC1607
M24C32-WMN6T (A)
PJED NVM
IC1613
IC1614
IC1615
IC1616
Q1601
Q1602
Q1603
2SC2412K
INV
Q1604
2SC2412K
CLAMP
Q1605
2SC2412K
CLAMP
X1601
12MHz
AT-49
CN1603
WHT
S-MICRO
LEFT
GND
UPPER
GND
LOWER
GND
RIGHT
GND
CN1602
20P
B TO B-S
TO A (2/3) BOARD CN3013
GND
BV
BH
GV
GH
RV
RH
GND
GND
+5V
PDAT
PCLK
/A_RESET
SDAT
SCLK
/BINT
GND
RE_R
RE_G
RE_B
CN1601
20P
B TO B-S
TO A (2/3) BOARD CN3012
RE_YS
GND
+3.3V
+5V
GND
VP
HP
/REGI_MUTE
GND
H_SAW
DF
GND
H_CENT
V_SHIFT
H_SHIFT
GND
SEN_U
SEN_LE
SEN_R
SEN_LO
D1601 1SS355TE
D1602
D1604 UPZS-5.1B
D1605 UPZS-5.1B
D1606 UPZS-5.1B
D1607 UPZS-5.1B
D1608
RB1601
RB1603 100*4
RB1604 100*4
RB1605 100*4
FB1601 BLM11A601S CHIP
FB1604 BLM11A601S CHIP
FB1606 BLM11A601S CHIP
FB1607 BLM11A601S CHIP
L1602 10μH LB2016
+5V
+3.3V
B-SS770 <U/C> AD -P1-05

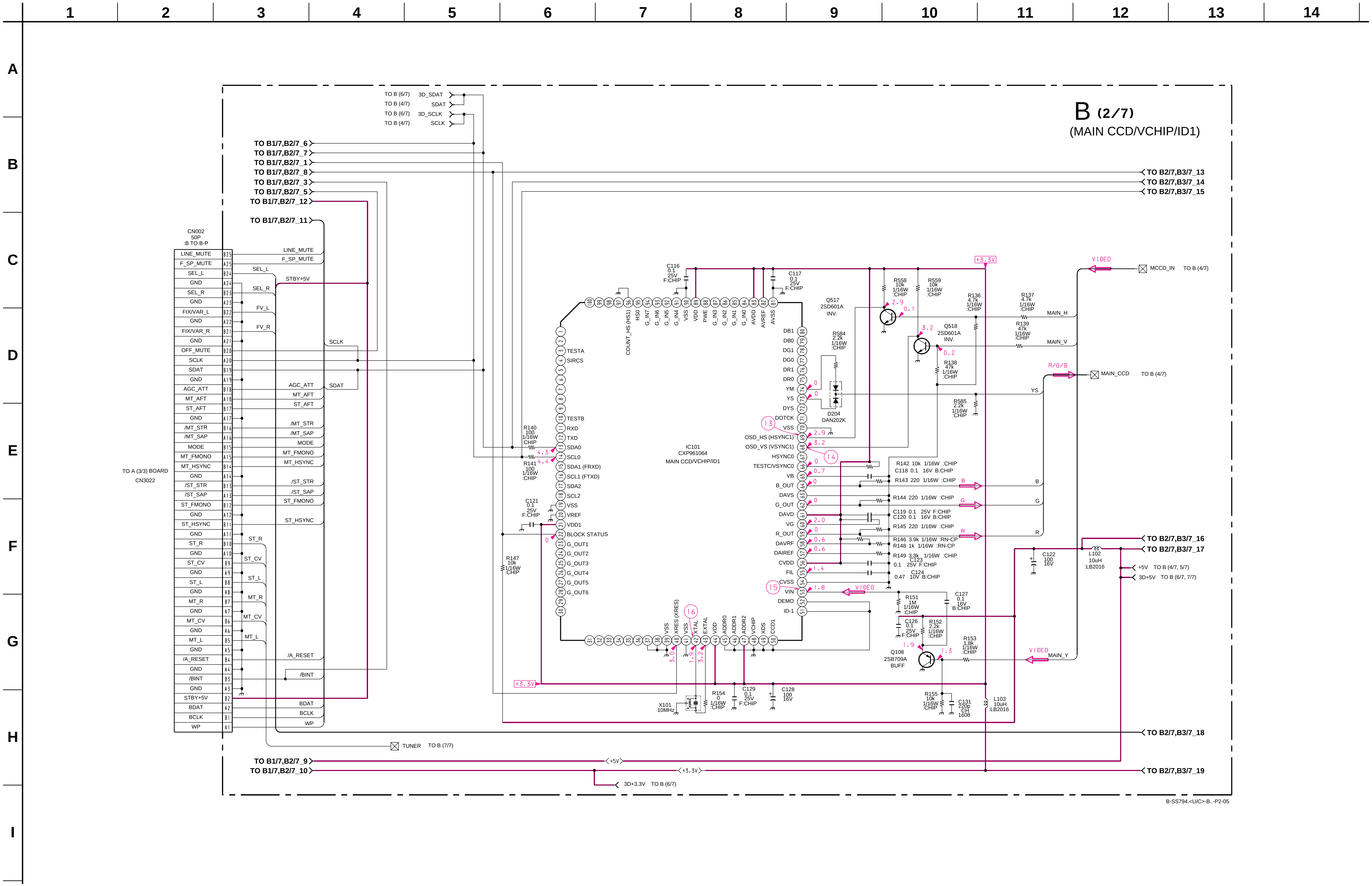
(5) Schematic Diagram of AD (2/2) Board


AD (2/2)
(PJE DRIVE)
TO AD1/2,AD2/2_1
TO AD1/2,AD2/2_3
TO AD1/2,AD2/2_2
TO AD1/2,AD2/2_7
TO AD1/2,AD2/2_4
TO AD1/2,AD2/2_5
TO AD1/2,AD2/2_6
IC1608
CD0031AM
D/A CONVERTER
IC1602
NJM2068V-TE2
RH FILTER & AMP
IC1603
NJM2068V-TE2
RV-FILTER & AMP
IC1610
NJM2068V-TE2
GH FILTER & AMP
IC1609
NJM2068V-TE2
GV FILTER & AMP
IC1612
NJM2068V-TE2
BH FILTER & AMP
IC1611
NJM2068V-TE2
BV FILTER & AMP
FB1614
BLM11A601S
:CHIP
FB1616
BLM11A601S
:CHIP
FB1615
BLM11A601S
:CHIP
D1603
1SS355TE
Q1606
2SC2412K
DETECT
+5V
-5V
B-SS770.<U/C>-AD.-P2-05

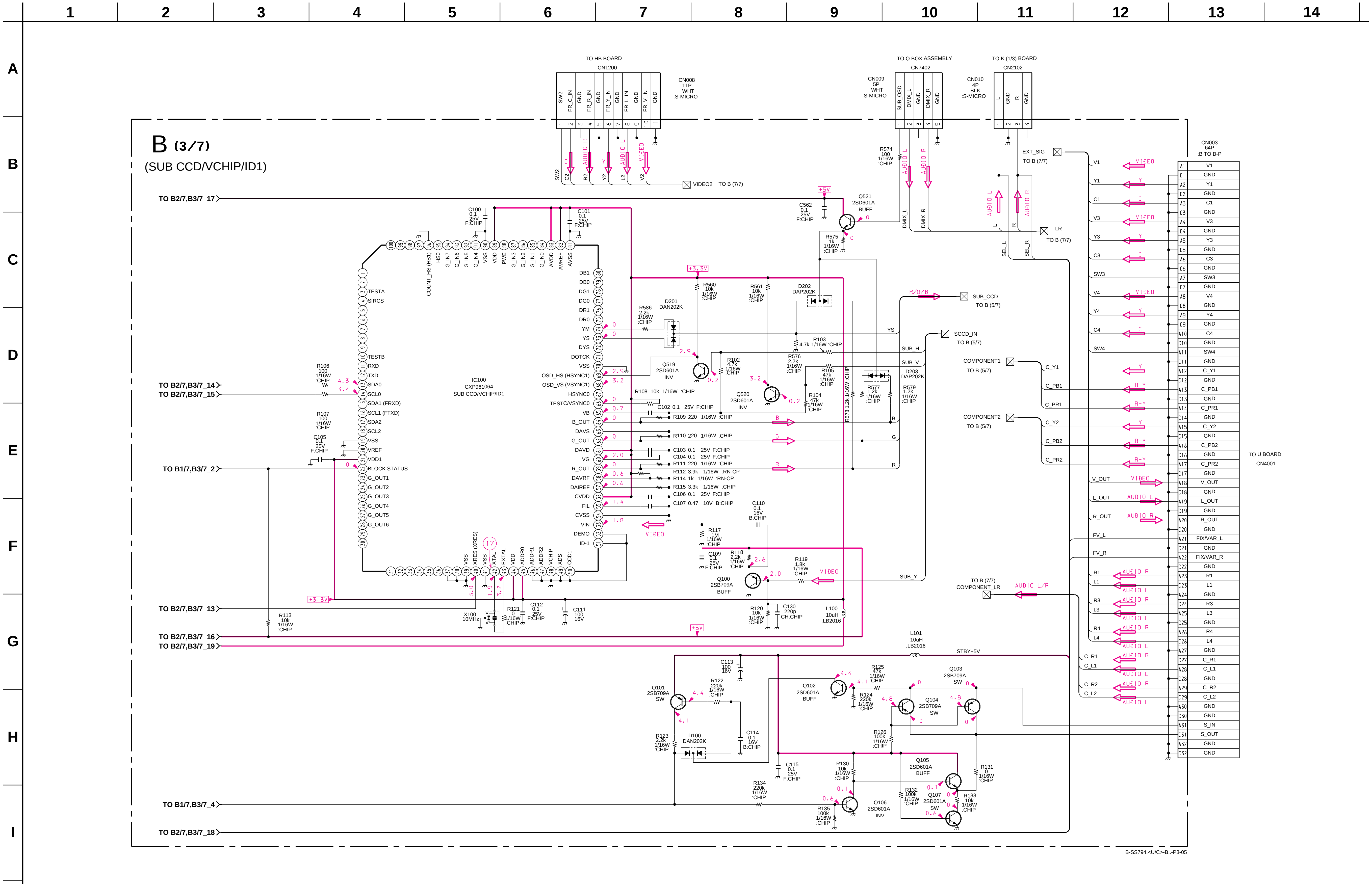
(6) Schematic Diagram of B (1/7) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
TO ANTENNA SWITCH
CN006 4P WHT :S-MICRO
TO K (1/3) BOARD CN2103
CN007 10P RED :S-MICRO
D001 DAN202K
ONOFF_MUTE TO B (7/7)
TO B1/7,B2/7_5
TO B1/7,B2/7_6
TO B1/7,B2/7_7
STBY +5V
TO B1/7,B2/7_1
TO B1/7,B3/7_2
TO B1/7,B2/7_3
SYNC_SW TO B (4/7)
Q001 2SD601A BUFF
3D_RST TO B (6/7)
TO B1/7,B2/7_8
TO B1/7,B2/7_9
TO B1/7,B2/7_10
SYNCSW+3.3V TO B (4/7)
+9V TO B (4/7, 5/7)
AVSW+9V TO B (7/7)
CN005 22P BLK :PHD
TO Q BOX ASSEMBLY CN8001
V_MIDI_Y
V_MIDI_PB
V_MIDI_PR
V_MIDI_HS
V_MIDI_VS
V_DRCI_Y
V_DRCI_PB
V_DRCI_PR
V_DRCI_HS
V_DRCI_VS
MN_SB_SW
A_MSK
EXT_SDA
EXT_SCL
/BINT
TO B (4/7) V_MIDI
TO B (4/7) V_DRCI
Y/B-Y/R-Y
MN_SB_SW TO B (4/7)
IC001 M306V2ME-154FP MAIN MICRO
Q522 2SD601A LED-SW
Q002 2SD601A LED-SW
Q003 2SD601A LED-SW
CN001 64P :B TO B-P
TO A (2/3) BOARD CN3020
CN004 22P WHT :PHD
TO Q BOX ASSEMBLY CN8401
GRANT
MID_BUSY
MICON_RST
V_MNO_PR
V_MNO_PB
V_MNO_Y
V_MNO_HS
V_MNO_VS
OSD_R
OSD_G
OSD_B
YSYM
M16C_TXD
M16C_RXD
IC002 M52055FP VIDEO SW
IC003 PST9143NL RESET
X001 10MHz
IC004 M24C32-WMN6T (A) NVM1
Q005 2SD601A BUFF
Q006 2SD601A BUFF
Q009 2SD601A BUFF
Q011 2SD601A BUFF
Q013 2SD601A BUFF
IC006 TC74HCT157AF SYNC SW
TO B1/7,B2/7_11
TO B1/7,B2/7_12
TO B1/7,B3/7_4
B (1/7) (MAIN MICRO)
B-SS794.<U/C>-B..-P1-05

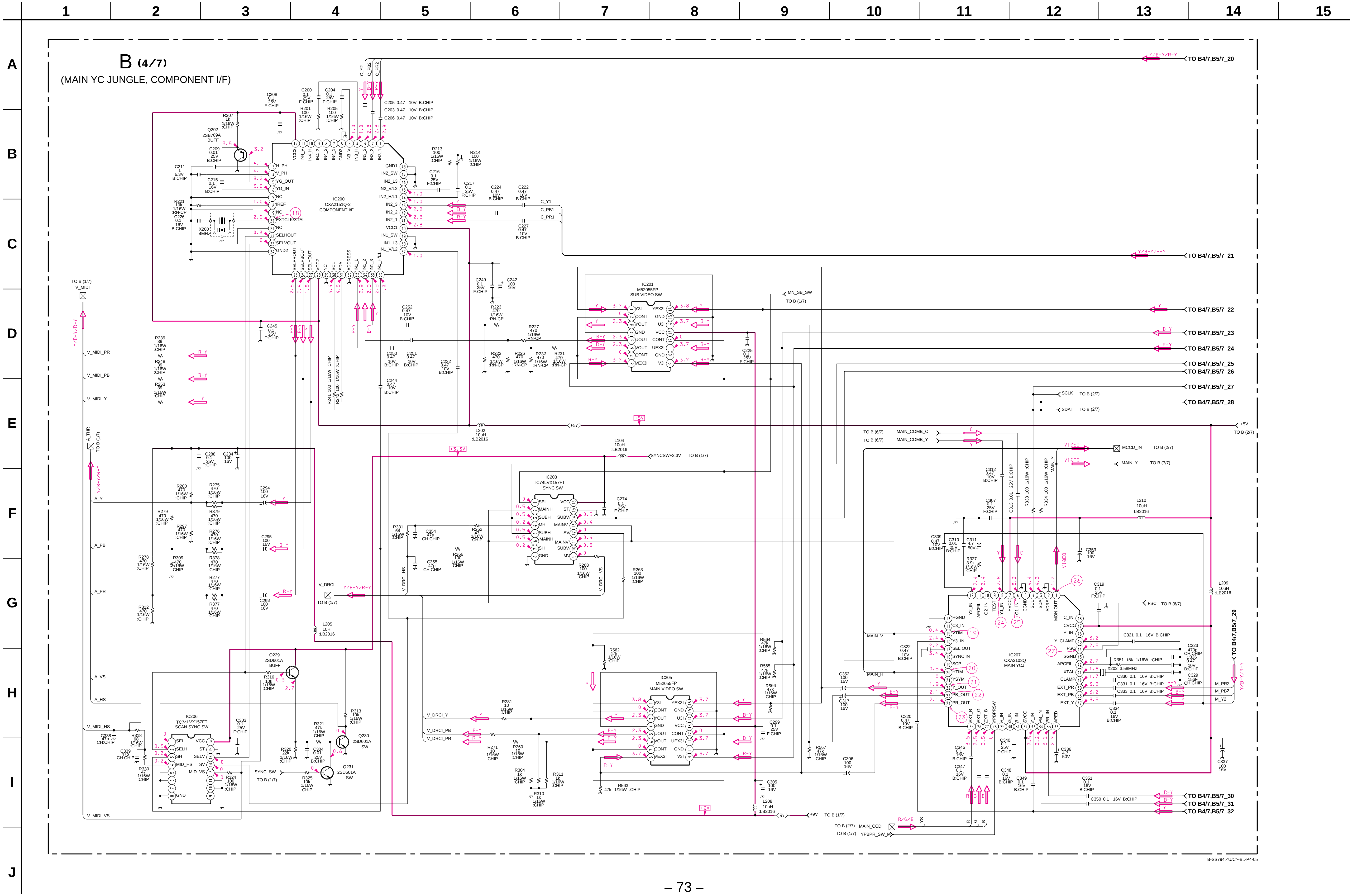
(7) Schematic Diagram of B (2/7) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
B (2/7)
(MAIN CCD/VCHIP/ID1)
TO B (6/7) 3D_SDAT
TO B (4/7) SDAT
TO B (6/7) 3D_SCLK
TO B (4/7) SCLK
TO B1/7,B2/7_6
TO B1/7,B2/7_7
TO B1/7,B2/7_1
TO B1/7,B2/7_8
TO B1/7,B2/7_3
TO B1/7,B2/7_5
TO B1/7,B2/7_12
TO B1/7,B2/7_11
TO B2/7,B3/7_13
TO B2/7,B3/7_14
TO B2/7,B3/7_15
TO B2/7,B3/7_16
TO B2/7,B3/7_17
TO B2/7,B3/7_18
TO B2/7,B3/7_19
TO B1/7,B2/7_9
TO B1/7,B2/7_10
CN002 50P :B TO B-P
LINE_MUTE
F_SP_MUTE
SEL_L
GND
SEL_R
FIX/VAR_L
FIX/VAR_R
OFF_MUTE
SCLK
SDAT
AGC_ATT
MT_AFT
ST_AFT
/MT_STR
/MT_SAP
MODE
MT_FMONO
MT_HSYNC
/ST_STR
/ST_SAP
ST_FMONO
ST_HSYNC
ST_R
ST_CV
ST_L
MT_R
MT_CV
MT_L
/A_RESET
/BINT
STBY+5V
BDAT
BCLK
WP
FV_L
FV_R
TO A (3/3) BOARD CN3022
TUNER TO B (7/7)
+5V
+3.3V
3D+3.3V TO B (6/7)
IC101 CXP961064 MAIN CCD/VCHIP/ID1
TESTA
SIRCS
TESTB
RXD
TXD
SDA0
SCL0
SDA1 (FRXD)
SCL1 (FTXD)
SDA2
SCL2
VSS
VREF
VDD1
BLOCK STATUS
G_OUT1
G_OUT2
G_OUT3
G_OUT4
G_OUT5
G_OUT6
COUNT_HS (HS1)
HS0
G_IN7
G_IN6
G_IN5
G_IN4
VSS
VDD
PWE
G_IN3
G_IN2
G_IN1
G_IN0
AVDD
AVREF
AVSS
DB1
DB0
DG1
DG0
DR1
DR0
YM
YS
DYS
DOTCK
VSS
OSD_HS (HSYNC1)
OSD_VS (VSYNC1)
HSYNC0
TESTC/VSYNC0
VB
B_OUT
DAVS
G_OUT
DAVD
VG
R_OUT
DAVRF
DAIREF
CVDD
FIL
CVSS
VIN
DEMO
ID-1
VSS
XRES (XRES)
VSS
XTAL
EXTAL
VDD
ADDR0
ADDR1
ADDR2
VCHIP
XDS
CCD1
C116 0.1 25V F:CHIP
C117 0.1 25V F:CHIP
R140 100 1/16W :CHIP
R141 100 1/16W :CHIP
C121 0.1 25V F:CHIP
R147 10k 1/16W :CHIP
Q517 2SD601A INV.
Q518 2SD601A INV.
R584 2.2k 1/16W :CHIP
D204 DAN202K
R558 10k 1/16W :CHIP
R559 10k 1/16W :CHIP
R136 4.7k 1/16W :CHIP
R137 4.7k 1/16W :CHIP
R139 47k 1/16W :CHIP
R138 47k 1/16W :CHIP
R585 2.2k 1/16W :CHIP
MAIN_H
MAIN_V
YS
VIDEO
MCCD_IN TO B (4/7)
R/G/B
MAIN_CCD TO B (4/7)
R142 10k 1/16W :CHIP
C118 0.1 16V B:CHIP
R143 220 1/16W :CHIP
R144 220 1/16W :CHIP
C119 0.1 25V F:CHIP
C120 0.1 16V B:CHIP
R145 220 1/16W :CHIP
R146 3.9k 1/16W :RN-CP
R148 1k 1/16W :RN-CP
R149 3.3k 1/16W :CHIP
C123 0.1 25V F:CHIP
C124 0.47 10V B:CHIP
B
G
R
C122 100 16V
L102 10uH :LB2016
+5V TO B (4/7, 5/7)
3D+5V TO B (6/7, 7/7)
R151 1M 1/16W :CHIP
C127 0.1 16V B:CHIP
C126 0.1 25V F:CHIP
R152 2.2k 1/16W :CHIP
R153 1.8k 1/16W :CHIP
Q108 2SB709A BUFF
MAIN_Y
X101 10MHz
R154 0 1/16W :CHIP
C129 0.1 25V F:CHIP
C128 100 16V
R155 10k 1/16W :CHIP
C131 220p CH 1608
L103 10uH :LB2016
4.3
4.4
0
2.9
0.1
3.2
0.2
0
0
2.9
3.2
0
0.7
0
0
2.0
0
0.6
0.6
1.4
1.8
1.9
1.3
3.0
1.9
3.2
13
14
15
16
B-SS794.<U/C>-B..-P2-05

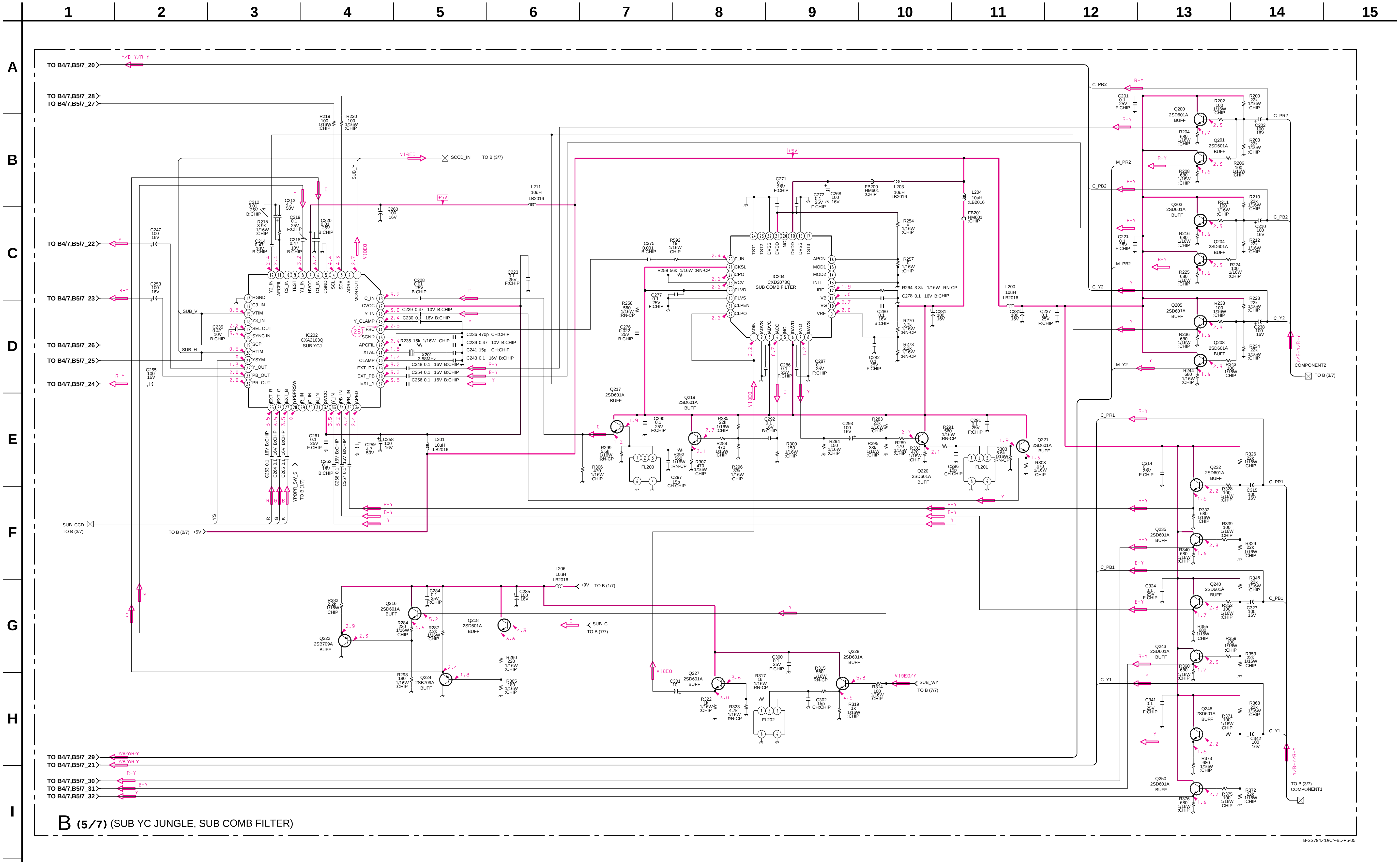
(8) Schematic Diagram of B (3/7) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
B (3/7)
(SUB CCD/VCHIP/ID1)
TO HB BOARD
CN1200
CN008
11P
WHT
:S-MICRO
SW2
FR_C_IN
GND
FR_R_IN
GND
FR_Y_IN
GND
FR_L_IN
GND
FR_V_IN
GND
TO Q BOX ASSEMBLY
CN7402
CN009
5P
WHT
:S-MICRO
SUB_OSD
DMIX_L
GND
DMIX_R
GND
TO K (1/3) BOARD
CN2102
CN010
4P
BLK
:S-MICRO
L
GND
R
GND
VIDEO2 TO B (7/7)
EXT_SIG
TO B (7/7)
LR
TO B (7/7)
CN003
64P
:B TO B-P
TO U BOARD
CN4001
TO B2/7,B3/7_17
TO B2/7,B3/7_14
TO B2/7,B3/7_15
TO B1/7,B3/7_2
TO B2/7,B3/7_13
TO B2/7,B3/7_16
TO B2/7,B3/7_19
TO B1/7,B3/7_4
TO B2/7,B3/7_18
IC100
CXP961064
SUB CCD/VCHIP/ID1
Q519
2SD601A
INV
Q520
2SD601A
INV
Q521
2SD601A
BUFF
Q100
2SB709A
BUFF
Q101
2SB709A
SW
Q102
2SD601A
BUFF
Q103
2SB709A
SW
Q104
2SB709A
SW
Q105
2SD601A
BUFF
Q106
2SD601A
INV
Q107
2SD601A
SW
D201
DAN202K
D202
DAP202K
D203
DAP202K
D100
DAN202K
X100
10MHz
L100
10uH
:LB2016
L101
10uH
:LB2016
STBY+5V
SUB_CCD
TO B (5/7)
SCCD_IN
TO B (5/7)
COMPONENT1
TO B (5/7)
COMPONENT2
TO B (5/7)
TO B (7/7)
COMPONENT_LR
B-SS794.<U/C>-B..-P3-05

(9) Schematic Diagram of B (4/7) Board


B (4/7)
(MAIN YC JUNGLE, COMPONENT I/F)
IC200 CXA2151Q-2 COMPONENT I/F
IC201 M52055FP SUB VIDEO SW
IC203 TC74LVX157FT SYNC SW
IC205 M52055FP MAIN VIDEO SW
IC206 TC74LVX157FT SCAN SYNC SW
IC207 CXA2103Q MAIN YCJ
Q202 2SB709A BUFF
Q229 2SD601A BUFF
Q230 2SD601A SW
Q231 2SD601A SW
X200 4MHz
X202 3.58MHz
L202 10uH LB2016
L104 10uH LB2016
L205 10H LB2016
L208 10uH LB2016
L209 10uH LB2016
L210 10uH LB2016
TO B4/7,B5/7_20
TO B4/7,B5/7_21
TO B4/7,B5/7_22
TO B4/7,B5/7_23
TO B4/7,B5/7_24
TO B4/7,B5/7_25
TO B4/7,B5/7_26
TO B4/7,B5/7_27
TO B4/7,B5/7_28
TO B4/7,B5/7_29
TO B4/7,B5/7_30
TO B4/7,B5/7_31
TO B4/7,B5/7_32
V_MIDI TO B (1/7)
V_MIDI_PR
V_MIDI_PB
V_MIDI_Y
A_THR TO B (1/7)
A_Y
A_PB
A_PR
A_VS
A_HS
V_MIDI_HS
V_MIDI_VS
V_DRCI TO B (1/7)
V_DRCI_Y
V_DRCI_PB
V_DRCI_PR
SYNC_SW TO B (1/7)
MN_SB_SW TO B (1/7)
SYNCSW+3.3V TO B (1/7)
SCLK TO B (2/7)
SDAT TO B (2/7)
+5V TO B (2/7)
MAIN_COMB_C TO B (6/7)
MAIN_COMB_Y TO B (6/7)
MCCD_IN TO B (2/7)
MAIN_Y TO B (7/7)
FSC TO B (6/7)
+9V TO B (1/7)
MAIN_CCD TO B (2/7)
YPBPR_SW_M TO B (1/7)
M_PR2
M_PB2
M_Y2
B-SS794.<U/C>-B..-P4-05

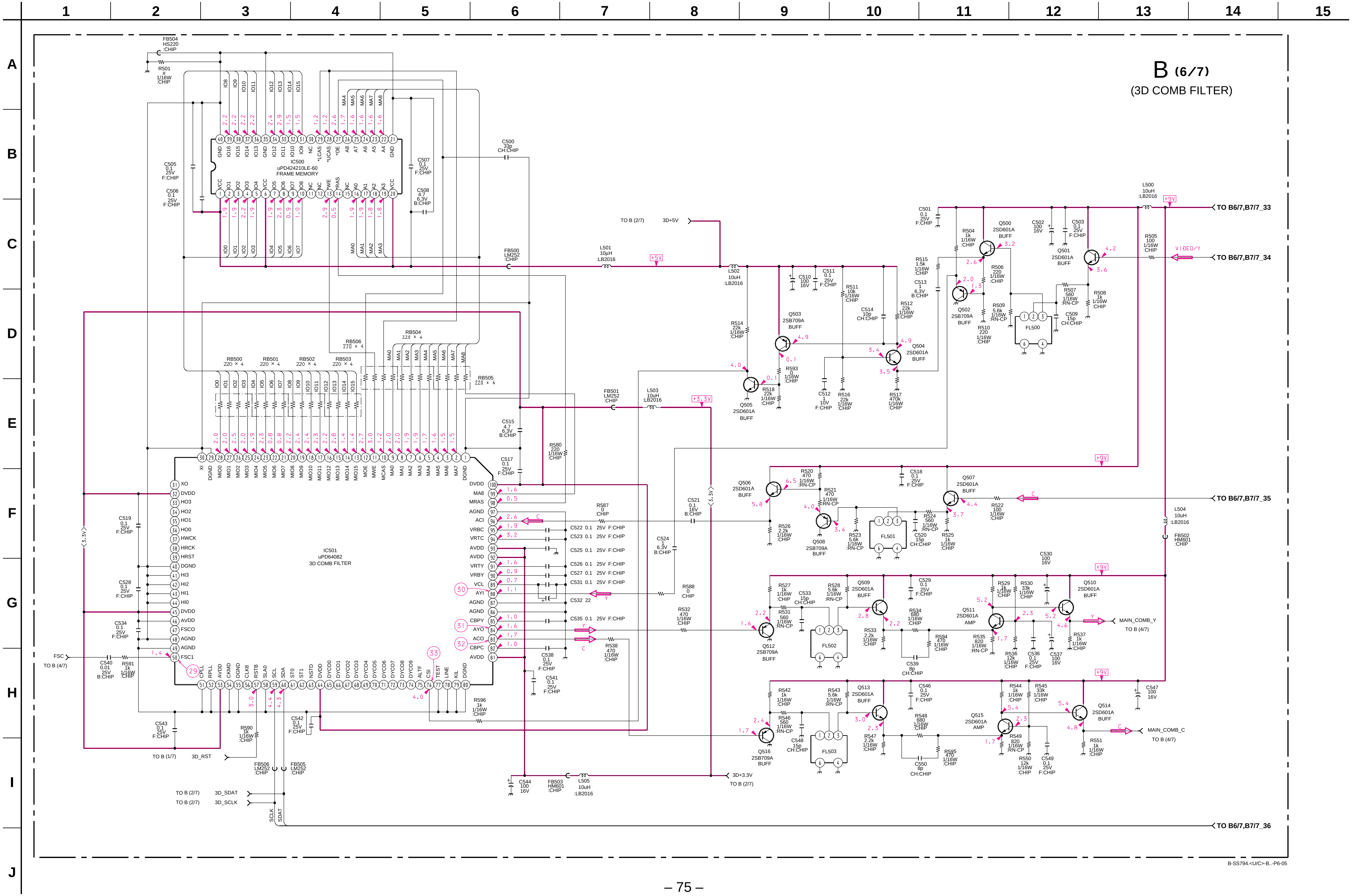
(10) Schematic Diagram of B (5/7) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
TO B4/7,B5/7_20
TO B4/7,B5/7_28
TO B4/7,B5/7_27
TO B4/7,B5/7_22
TO B4/7,B5/7_23
TO B4/7,B5/7_26
TO B4/7,B5/7_25
TO B4/7,B5/7_24
TO B4/7,B5/7_29
TO B4/7,B5/7_21
TO B4/7,B5/7_30
TO B4/7,B5/7_31
TO B4/7,B5/7_32
Y/B-Y/R-Y
SUB_V
SUB_H
SUB_CCD
TO B (3/7)
TO B (2/7) +5V
SCCD_IN
TO B (3/7)
IC202
CXA2103Q
SUB YCJ
IC204
CXD2073Q
SUB COMB FILTER
L211
10uH
:LB2016
L201
10uH
:LB2016
L206
10uH
:LB2016
+9V TO B (1/7)
SUB_C
TO B (7/7)
SUB_V/Y
TO B (7/7)
VIDEO
VIDEO/Y
FL200
FL201
FL202
X201
3.58MHz
Q200 2SD601A BUFF
Q201 2SD601A BUFF
Q203 2SD601A BUFF
Q204 2SD601A BUFF
Q205 2SD601A BUFF
Q208 2SD601A BUFF
Q216 2SD601A BUFF
Q217 2SD601A BUFF
Q218 2SD601A BUFF
Q219 2SD601A BUFF
Q220 2SD601A BUFF
Q221 2SD601A BUFF
Q222 2SB709A BUFF
Q224 2SB709A BUFF
Q227 2SD601A BUFF
Q228 2SD601A BUFF
Q232 2SD601A BUFF
Q235 2SD601A BUFF
Q240 2SD601A BUFF
Q243 2SD601A BUFF
Q248 2SD601A BUFF
Q250 2SD601A BUFF
C_PR2
M_PR2
C_PB2
M_PB2
C_Y2
M_Y2
C_PR1
C_PB1
C_Y1
COMPONENT2
TO B (3/7)
TO B (3/7)
COMPONENT1
L200
10uH
:LB2016
L203
10uH
:LB2016
L204
10uH
:LB2016
FB200
HM601
:CHIP
FB201
HM601
:CHIP

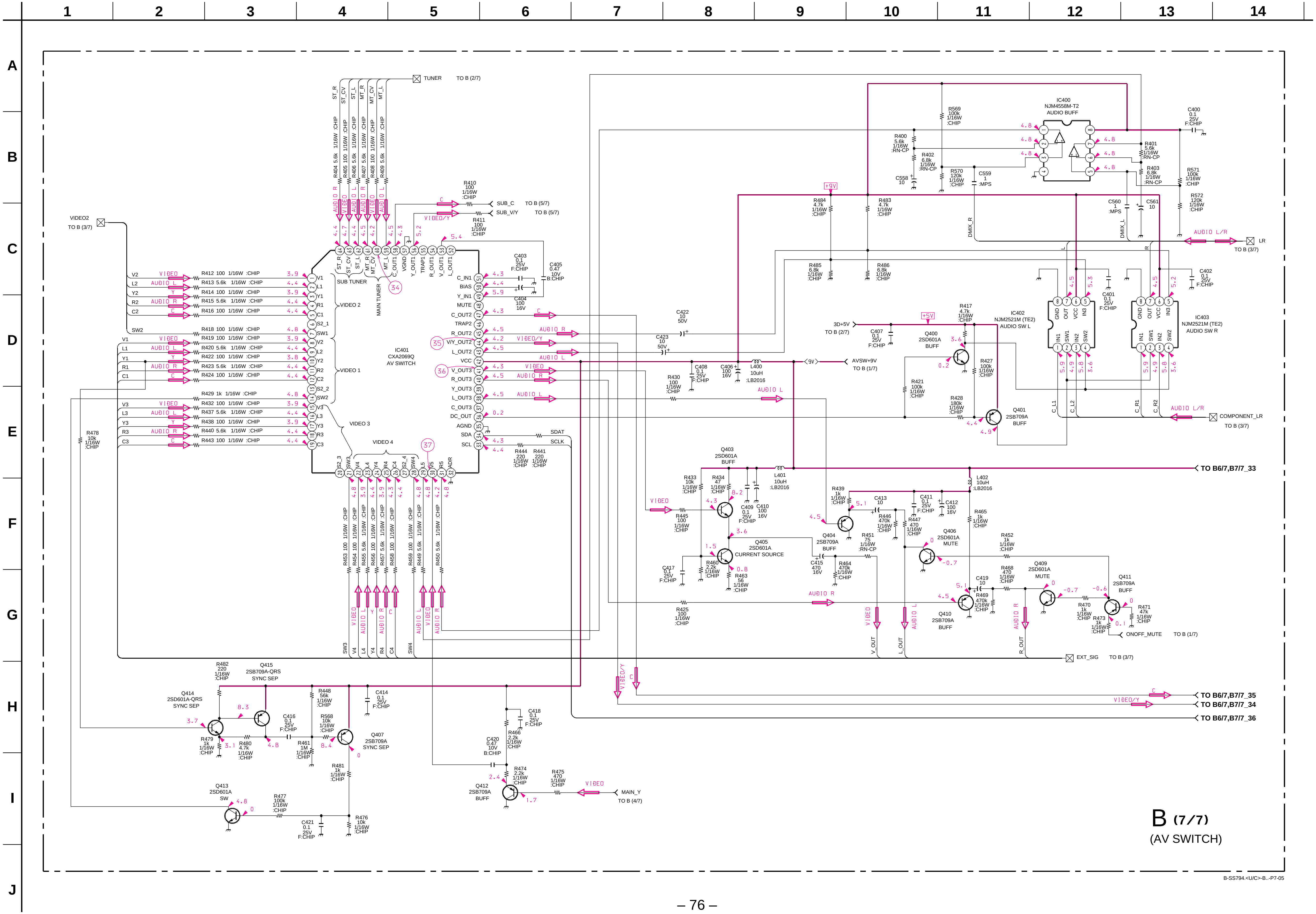
B (5/7) (SUB YC JUNGLE, SUB COMB FILTER)

B-SS794.<U/C>-B..:P5-05

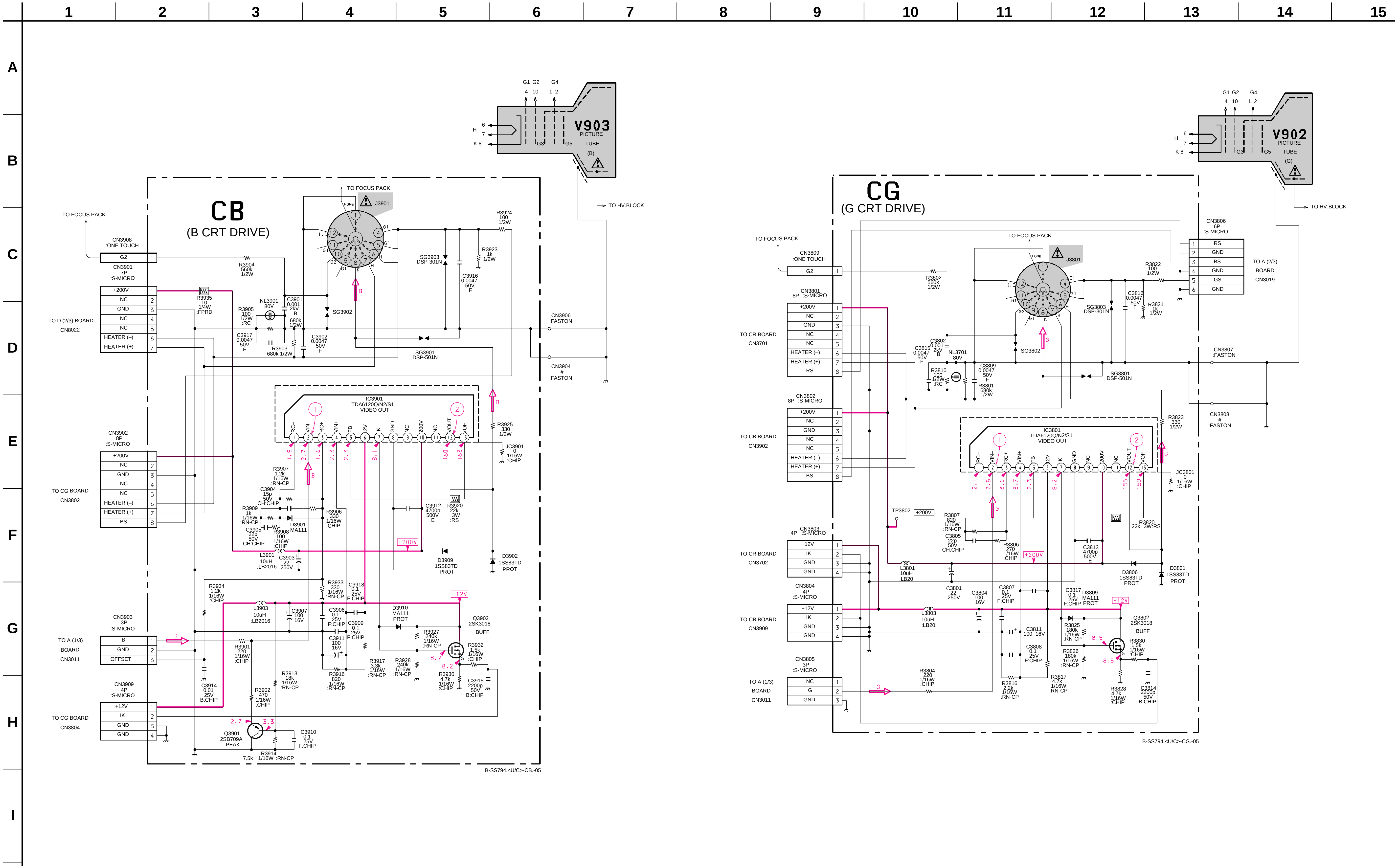
(11) Schematic Diagram of B (6/7) Board


B (6/7)
(3D COMB FILTER)
IC500
uPD424210LE-60
FRAME MEMORY
IC501
uPD64082
3D COMB FILTER
RB500 220 × 4
RB501 220 × 4
RB502 220 × 4
RB503 220 × 4
RB504 220 × 4
RB505 220 × 4
RB506 220 × 4
FL500
FL501
FL502
FL503
Q500 2SD601A BUFF
Q501 2SD601A BUFF
Q502 2SB709A BUFF
Q503 2SB709A BUFF
Q504 2SD601A BUFF
Q505 2SD601A BUFF
Q506 2SD601A BUFF
Q507 2SD601A BUFF
Q508 2SB709A BUFF
Q509 2SD601A BUFF
Q510 2SD601A BUFF
Q511 2SD601A AMP
Q512 2SB709A BUFF
Q513 2SD601A BUFF
Q514 2SD601A BUFF
Q515 2SD601A AMP
Q516 2SB709A BUFF
TO B (2/7) 3D+5V
TO B (2/7) 3D+3.3V
TO B (2/7) 3D_SDAT
TO B (2/7) 3D_SCLK
TO B (1/7) 3D_RST
TO B (4/7) FSC
TO B6/7,B7/7_33
TO B6/7,B7/7_34
TO B6/7,B7/7_35
TO B6/7,B7/7_36
VIDEO/Y
MAIN_COMB_Y TO B (4/7)
MAIN_COMB_C TO B (4/7)
+9V
+5V
+3.3V
L500 10uH :LB2016
L501 10µH :LB2016
L502 10uH :LB2016
L503 10uH :LB2016
L504 10uH :LB2016
L505 10uH :LB2016
FB500 LM252 :CHIP
FB501 LM252 :CHIP
FB502 HM601 :CHIP
FB503 HM601 :CHIP
FB504 HS220 :CHIP
FB505 LM252 :CHIP
FB506 LM252 :CHIP
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J

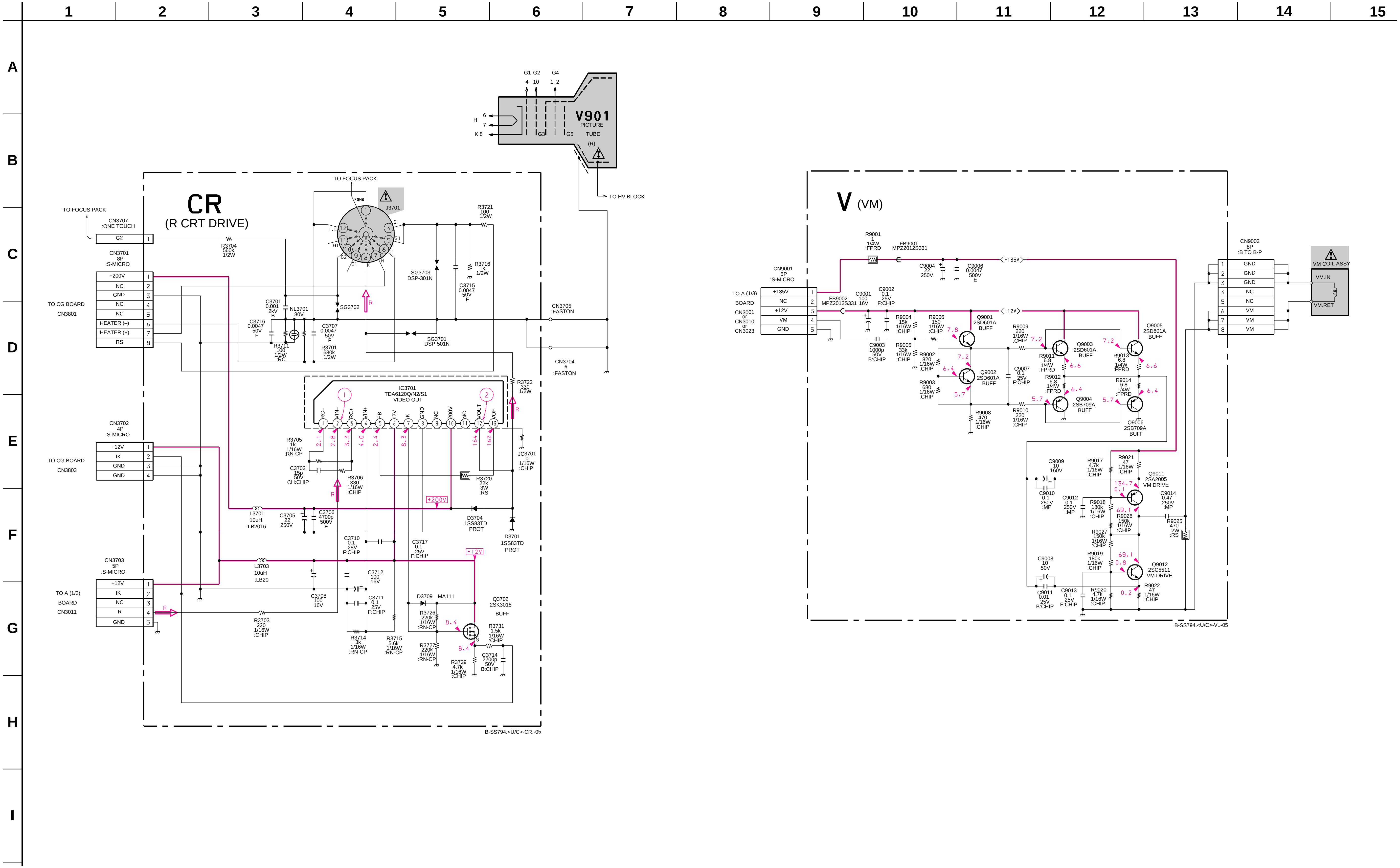
(12) Schematic Diagram of B (7/7) Board


IC400
NJM4558M-T2
AUDIO BUFF
IC401
CXA2069Q
AV SWITCH
IC402
NJM2521M (TE2)
AUDIO SW L
IC403
NJM2521M (TE2)
AUDIO SW R
SUB TUNER
MAIN TUNER
VIDEO 1
VIDEO 2
VIDEO 3
VIDEO 4
TUNER
TO B (2/7)
VIDEO2
TO B (3/7)
SUB_C
SUB_V/Y
TO B (5/7)
LR
TO B (3/7)
3D+5V
TO B (2/7)
AVSW+9V
TO B (1/7)
COMPONENT_LR
TO B (3/7)
TO B6/7,B7/7_33
Q400
2SD601A
BUFF
Q401
2SB709A
BUFF
Q403
2SD601A
BUFF
Q404
2SB709A
BUFF
Q405
2SD601A
CURRENT SOURCE
Q406
2SD601A
MUTE
Q409
2SD601A
MUTE
Q410
2SB709A
BUFF
Q411
2SB709A
BUFF
ONOFF_MUTE
TO B (1/7)
EXT_SIG
TO B (3/7)
Q415
2SB709A-QRS
SYNC SEP
Q414
2SD601A-QRS
SYNC SEP
Q407
2SB709A
SYNC SEP
Q413
2SD601A
SW
Q412
2SB709A
BUFF
MAIN_Y
TO B (4/7)
TO B6/7,B7/7_35
TO B6/7,B7/7_34
TO B6/7,B7/7_36
B (7/7)
(AV SWITCH)
B-SS794.<U/C>-B.-P7-05

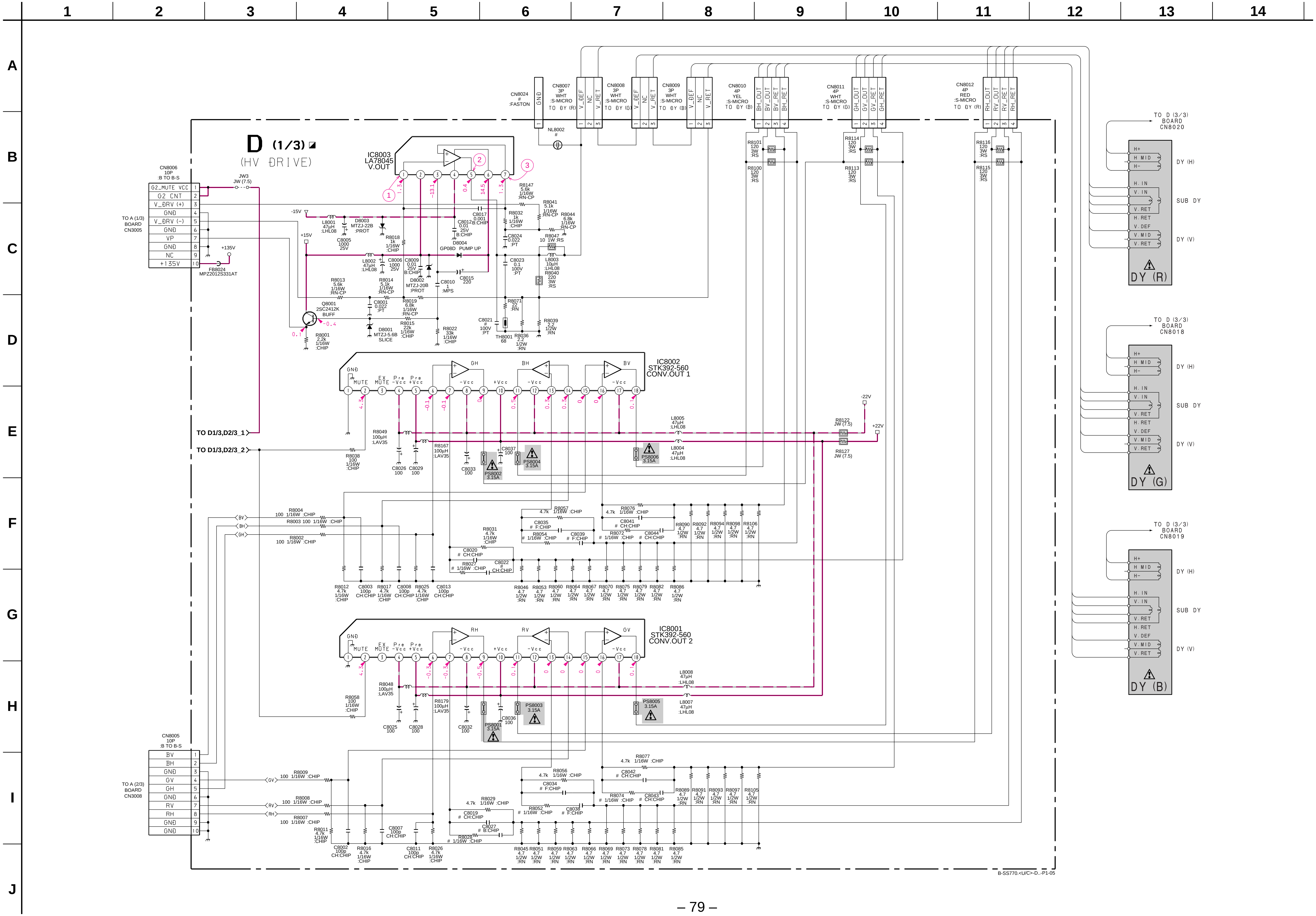
(13) Schematic Diagrams of CB and CG Boards


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
CB
(B CRT DRIVE)
CG
(G CRT DRIVE)
V903
PICTURE TUBE (B)
V902
PICTURE TUBE (G)
G1 G2 G4
TO HV.BLOCK
TO FOCUS PACK
J3901
J3801
CN3908 :ONE TOUCH
CN3901 7P :S-MICRO
TO D (2/3) BOARD CN8022
CN3902 8P :S-MICRO
TO CG BOARD CN3802
CN3903 3P :S-MICRO
TO A (1/3) BOARD CN3011
CN3909 4P :S-MICRO
TO CG BOARD CN3804
+200V
NC
GND
HEATER (–)
HEATER (+)
BS
RS
IK
OFFSET
+12V
IC3901 TDA6120Q/N2/S1 VIDEO OUT
IC3801 TDA6120Q/N2/S1 VIDEO OUT
RC–
VIN–
RC+
VIN+
FB
12V
IK
GND
NC
200V
VOUT
VOF
Q3901 2SB709A PEAK
Q3902 2SK3018 BUFF
Q3802 2SK3018 BUFF
D3901 MA111
D3902 1SS83TD PROT
D3909 1SS83TD PROT
D3910 MA111 PROT
D3801 1SS83TD PROT
D3806 1SS83TD PROT
D3809 MA111 PROT
SG3901 DSP-501N
SG3902
SG3903 DSP-301N
SG3801 DSP-501N
SG3802
SG3803 DSP-301N
NL3901 80V
NL3701 80V
CN3906 :FASTON
CN3904 :FASTON
CN3807 :FASTON
CN3808 :FASTON
CN3809 :ONE TOUCH
CN3801 8P :S-MICRO
TO CR BOARD CN3701
CN3802 8P :S-MICRO
TO CB BOARD CN3902
CN3803 4P :S-MICRO
TO CR BOARD CN3702
CN3804 4P :S-MICRO
TO CB BOARD CN3909
CN3805 3P :S-MICRO
TO A (1/3) BOARD CN3011
CN3806 6P :S-MICRO
TO A (2/3) BOARD CN3019
GS
TP3802
JC3901
JC3801
L3901 10uH :LB2016
L3903 10uH :LB2016
L3801 10uH :LB20
L3803 10uH :LB20
B-SS794.<U/C>-CB.-05
B-SS794.<U/C>-CG.-05

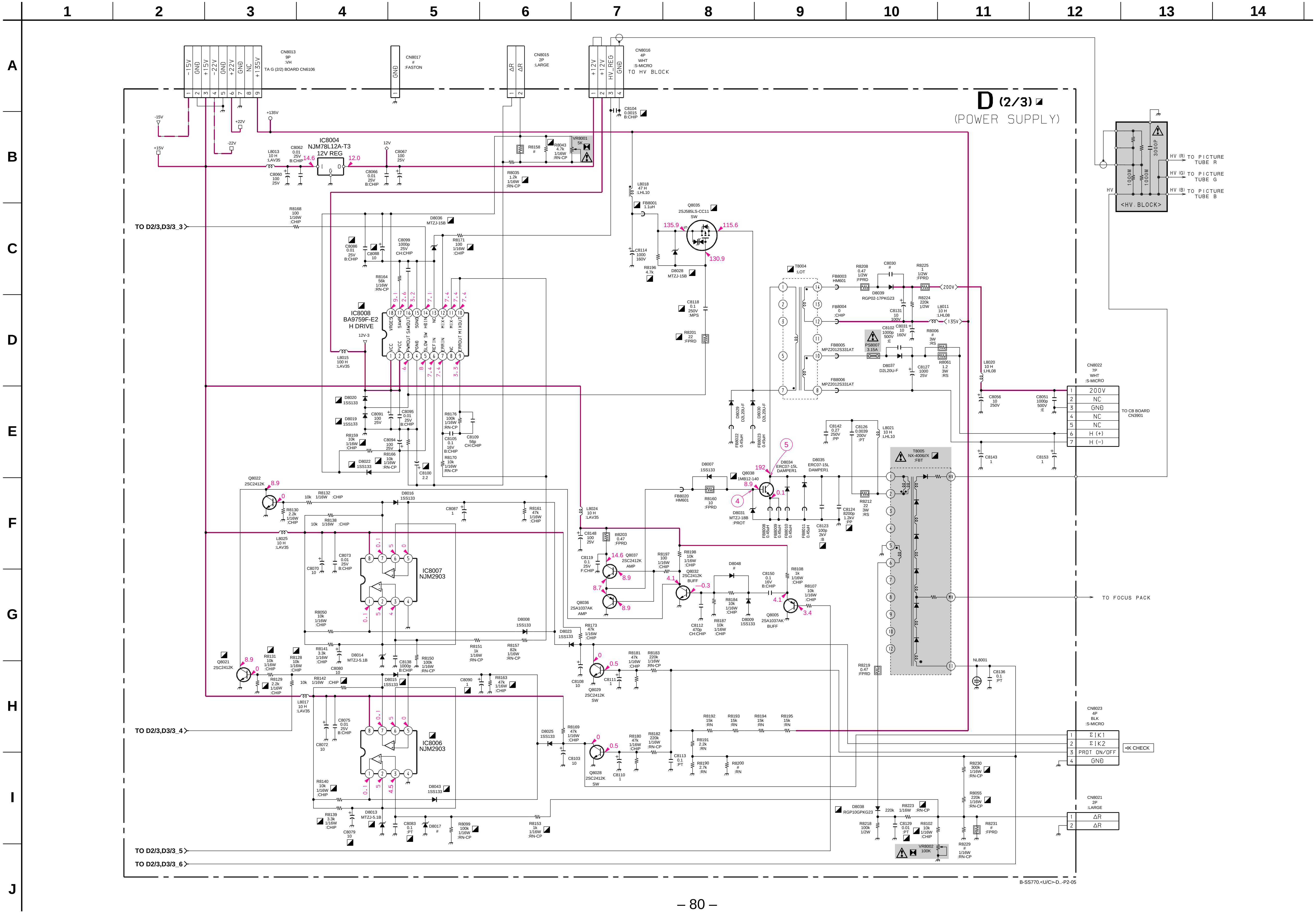
(14) Schematic Diagrams of CR and V Boards


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
CR
(R CRT DRIVE)
V (VM)
V901
PICTURE
TUBE
(R)
G1 G2 G4
TO HV.BLOCK
TO FOCUS PACK
J3701
CN3707
:ONE TOUCH
G2
R3704
560k
1/2W
CN3701
8P
:S-MICRO
+200V
NC
GND
NC
NC
HEATER (–)
HEATER (+)
RS
TO CG BOARD
CN3801
CN3702
4P
:S-MICRO
+12V
IK
GND
GND
TO CG BOARD
CN3803
CN3703
5P
:S-MICRO
+12V
IK
NC
R
GND
TO A (1/3)
BOARD
CN3011
SG3703
DSP-301N
SG3701
DSP-501N
SG3702
NL3701
80V
R3721
100
1/2W
R3716
1k
1/2W
C3715
0.0047
500V
F
CN3705
:FASTON
CN3704
#
:FASTON
IC3701
TDA6120Q/N2/S1
VIDEO OUT
RC–
VIN–
RC+
VIN+
FB
12V
IK
GND
NC
200V
NC
VOUT
VOF
R3722
330
1/2W
JC3701
0
1/16W
:CHIP
R3720
22k
3W
:RS
D3704
1SS83TD
PROT
D3701
1SS83TD
PROT
L3701
10uH
:LB2016
L3703
10uH
:LB20
Q3702
2SK3018
BUFF
D3709 MA111
+200V
+12V
B-SS794.<U/C>-CR.-05
CN9001
5P
:S-MICRO
+135V
NC
+12V
VM
GND
TO A (1/3)
BOARD
CN3001
or
CN3010
or
CN3023
R9001
1
1/4W
:FPRD
FB9001
MPZ2012S331
FB9002
MPZ2012S331
+135V
+12V
Q9001
2SD601A
BUFF
Q9002
2SD601A
BUFF
Q9003
2SD601A
BUFF
Q9004
2SB709A
BUFF
Q9005
2SD601A
BUFF
Q9006
2SB709A
BUFF
Q9011
2SA2005
VM DRIVE
Q9012
2SC5511
VM DRIVE
CN9002
8P
:B TO B-P
GND
GND
GND
NC
NC
VM
VM
VM
VM COIL ASSY
VM.IN
VM.RET
B-SS794.<U/C>-V.-05

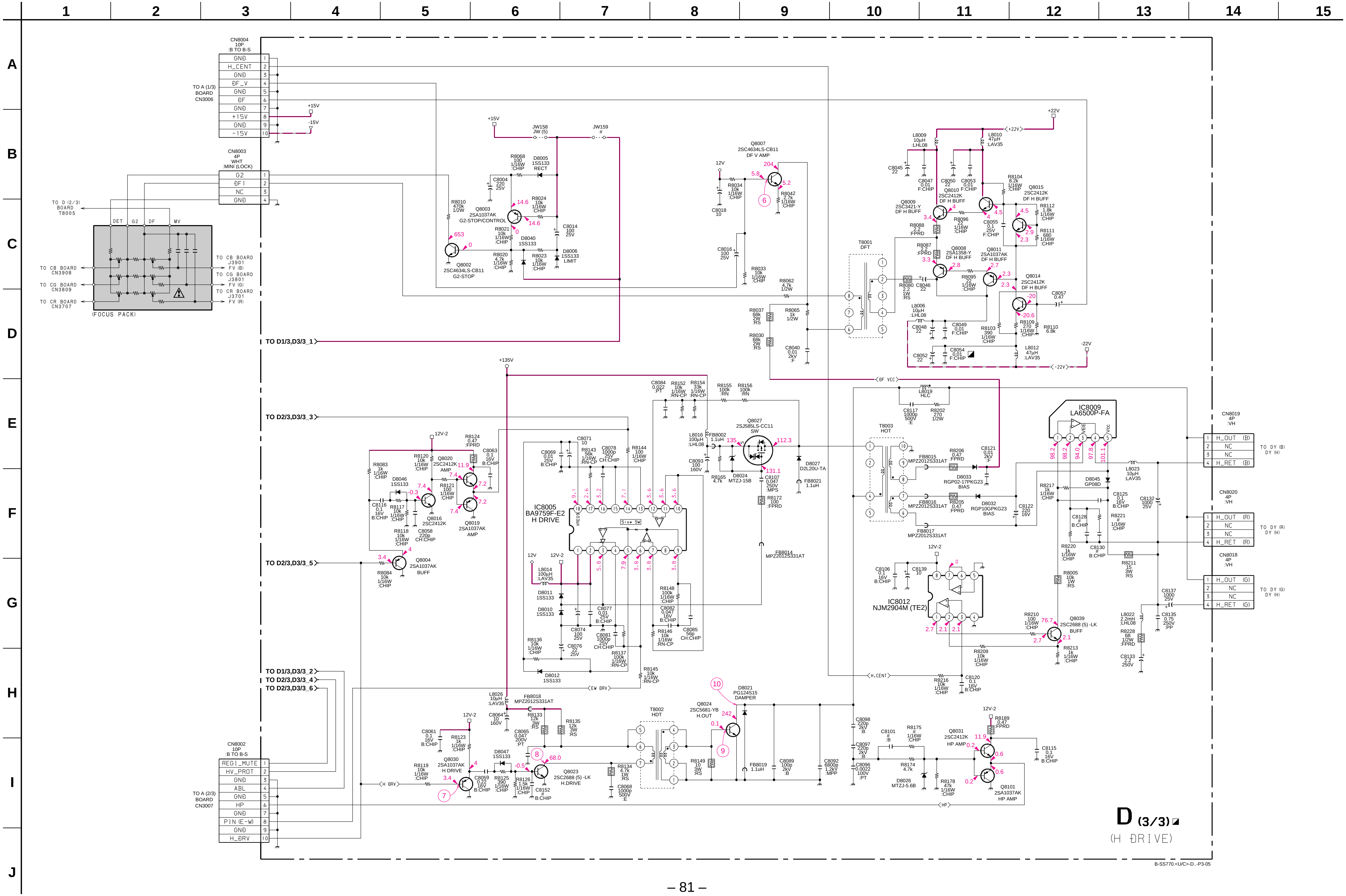
(15) Schematic Diagram of D (1/3) Board


D (1/3)
(HV DRIVE)
IC8003 LA78045 V.OUT
IC8002 STK392-560 CONV.OUT 1
IC8001 STK392-560 CONV.OUT 2
CN8006 10P :B TO B-S
TO A (1/3) BOARD CN3005
G2_MUTE VCC
G2 CNT
V_DRV (+)
GND
V_DRV (-)
GND
VP
GND
NC
+135V
CN8005 10P :B TO B-S
TO A (2/3) BOARD CN3008
BV
BH
GND
GV
GH
GND
RV
RH
GND
GND
TO D1/3,D2/3_1
TO D1/3,D2/3_2
CN8024 # :FASTON
CN8007 3P WHT :S-MICRO TO DY (R)
CN8008 3P WHT :S-MICRO TO DY (G)
CN8009 3P WHT :S-MICRO TO DY (B)
CN8010 4P YEL :S-MICRO TO DY (B)
CN8011 4P WHT :S-MICRO TO DY (G)
CN8012 4P RED :S-MICRO TO DY (R)
V_DEF
NC
V_RET
BH_OUT
BV_OUT
BV_RET
BH_RET
GH_OUT
GV_OUT
GV_RET
GH_RET
RH_OUT
RV_OUT
RV_RET
RH_RET
TO D (3/3) BOARD CN8020
TO D (3/3) BOARD CN8018
TO D (3/3) BOARD CN8019
DY (R)
DY (G)
DY (B)
DY (H)
SUB DY
DY (V)
H+
H MID
H-
H.IN
V.IN
V.RET
H.RET
V.DEF
V.MID
Q8001 2SC2412K BUFF
D8003 MTZJ-22B :PROT
D8002 MTZJ-20B :PROT
D8001 MTZJ-5.6B SLICE
D8004 GP08D PUMP UP
FB8024 MPZ2012S331AT
JW3 JW (7.5)
PS8001 3.15A
PS8002 3.15A
PS8003 3.15A
PS8004 3.15A
PS8005 3.15A
PS8006 3.15A
-15V
+15V
+135V
-22V
+22V
GND
MUTE
EX MUTE
Pre -Vcc
Pre +Vcc
-Vcc
+Vcc
GH
BH
BV
RH
RV
GV
B-SS770.<U/C>-D..-P1-05

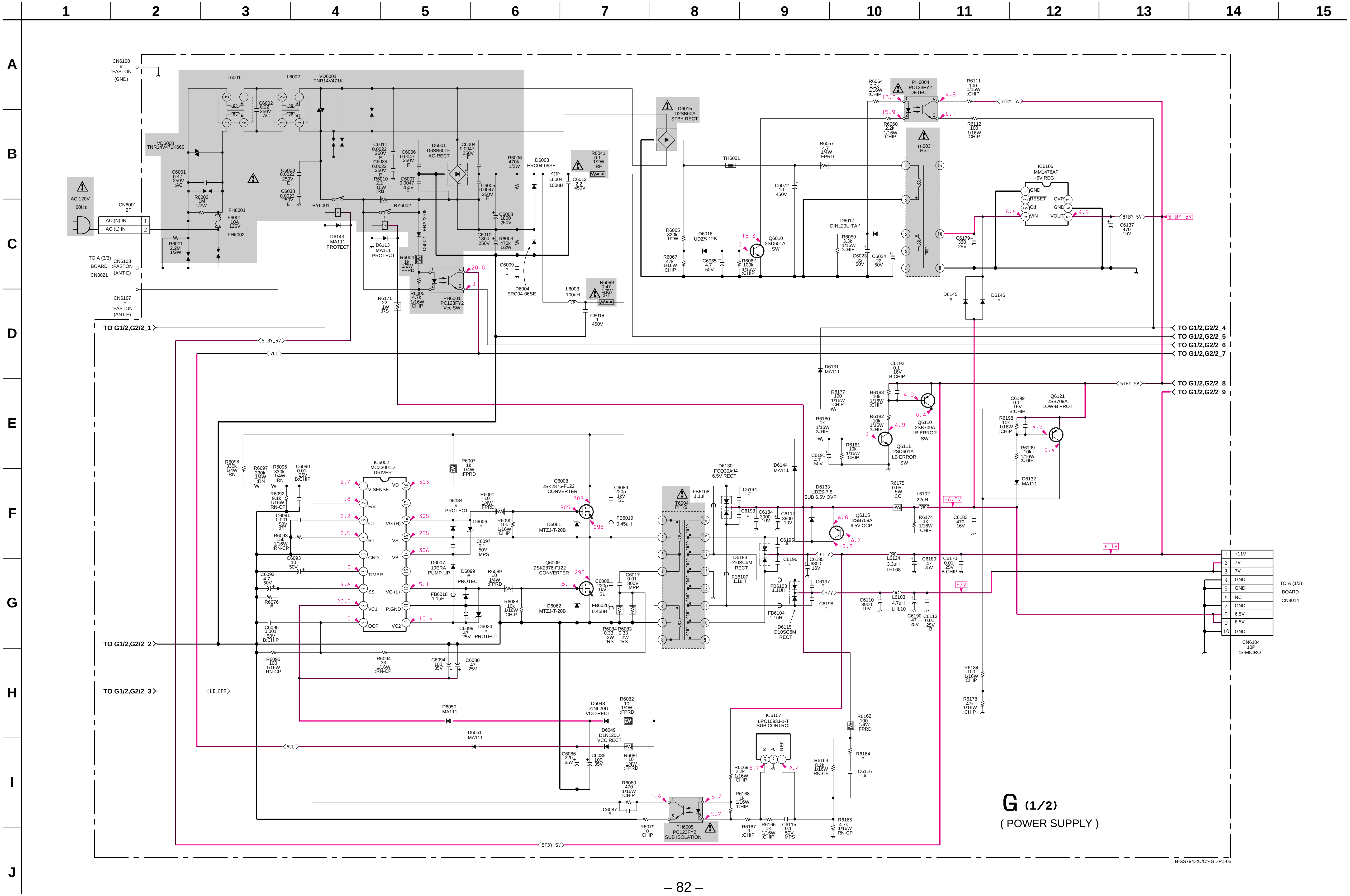
(16) Schematic Diagram of D (2/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
D (2/3)
(POWER SUPPLY)
CN8013 9P :VH TA G (2/2) BOARD CN6106
-15V
GND
+15V
-22V
GND
+22V
GND
NC
+135V
CN8017 # :FASTON
GND
CN8015 2P :LARGE
ΔR
ΔR
CN8016 4P WHT :S-MICRO TO HV BLOCK
+12V
+12V
HV_REG
GND
C8104 0.0015 B:CHIP
IC8004 NJM78L12A-T3 12V REG
14.6
12.0
L8013 10 H :LAV35
C8062 0.01 25V B:CHIP
C8060 100 25V
C8066 0.01 25V B:CHIP
C8067 100 25V
R8158 #
R8043 4.7k 1/16W :RN-CP
VR8001 5k
R8035 1.2k 1/16W :RN-CP
L8018 47 H :LHL10
FB8001 1.1uH
Q8035 2SJ585LS-CC11 SW
135.9
115.6
130.9
C8114 1000 160V
R8196 4.7k
D8028 MTZJ-15B
C8118 0.1 250V :MPS
R8201 22 :FPRD
TO D2/3,D3/3_3
R8168 100 1/16W :CHIP
D8036 MTZJ-15B
C8086 0.01 25V B:CHIP
C8088 10
C8099 1000p 25V CH:CHIP
R8171 100 1/16W :CHIP
R8164 56k 1/16W :RN-CP
IC8008 BA9759F-E2 H DRIVE
12V-3
L8015 100 H :LAV35
VREG5
SAWIN
SAWOUT
SGND
HBIN
NC
MIX-
MIX+
MIXOUT
VCC
PVCC
HMOUT
PGND
BLOW SW
REFIN
ERRIN
NC
EWOUT
D8020 1SS133
D8019 1SS133
C8091 100 25V
C8095 0.01 25V B:CHIP
R8159 10k 1/16W :CHIP
C8094 100 25V
R8166 10k 1/16W :RN-CP
D8022 1SS133
C8100 2.2
R8176 100k 1/16W :RN-CP
C8105 0.1 16V B:CHIP
C8109 56p CH:CHIP
R8170 10k 1/16W :RN-CP
T8004 :LOT
FB8003 HM601
R8208 0.47 1/2W :FPRD
C8030 #
R8225 1 1/2W :FPRD
D8039 RGP02-17PKG23
R8224 220k 1/2W
200V
135V
FB8004 0 :CHIP
C8131 10 100V
C8102 1000p 500V :E
C8031 10 160V
R8006 # 3W :RS
L8011 10 H :LHL08
FB8005 MPZ2012S331AT
PS8007 3.15A
D8037 D2L20U-F
C8127 1000 25V
R8061 1.2 3W :RS
FB8006 MPZ2012S331AT
L8020 10 H :LHL08
C8056 10 250V
C8051 1000p 500V :E
CN8022 7P WHT :S-MICRO
200V
NC
GND
NC
NC
H (+)
H (-)
TO CB BOARD CN3901
D8029 D2L20U-F
D8030 D2L20U-F
FB8022 0.45uH
FB8023 0.45uH
C8142 0.27 250V :PP
C8126 0.0039 200V :PT
L8021 10 H :LHL10
C8143 1
C8153 1
T8005 NX-4006//X :FBT
HV (R) TO PICTURE TUBE R
HV (G) TO PICTURE TUBE G
HV (B) TO PICTURE TUBE B
HV
1000M
1000M
3000P
<HV. BLOCK>
TO FOCUS PACK
FV
D8007 1SS133
Q8038 1MB12-140
192
8.9
0.1
D8034 ERC07-15L DAMPER1
D8035 ERC07-15L DAMPER1
FB8020 HM601
R8160 10 :FPRD
D8031 MTZJ-18B :PROT
FB8008 0.45uH
FB8009 0.45uH
FB8010 0.45uH
FB8011 0.45uH
C8123 100p 2kV :B
C8124 8200p 1.2kV :PP
R8212 22 3W :RS
Q8022 2SC2412K
8.9
0
R8132 10k 1/16W :CHIP
D8016 1SS133
C8087 1
R8161 47k 1/16W :CHIP
R8130 2.2k 1/16W :CHIP
R8138 10k 1/16W :CHIP
L8024 10 H :LAV35
L8025 10 H :LAV35
C8070 10
C8073 0.01 25V B:CHIP
IC8007 NJM2903
0.1
5
0
4.5
R8050 10k 1/16W :CHIP
D8008 1SS133
C8148 100 25V
R8203 0.47 :FPRD
C8119 0.1 25V F:CHIP
Q8037 2SC2412K AMP
14.6
8.9
R8197 100 1/16W :CHIP
R8198 10k 1/16W :CHIP
Q8032 2SC2412K BUFF
4.1
-0.3
D8048 #
C8150 0.1 16V B:CHIP
R8108 1k 1/16W :CHIP
R8107 10k 1/16W :CHIP
Q8036 2SA1037AK AMP
8.7
R8184 10k 1/16W :CHIP
D8009 1SS133
Q8005 2SA1037AK BUFF
3.4
C8112 470p CH:CHIP
R8187 10k 1/16W :CHIP
R8173 47k 1/16W :CHIP
D8023 1SS133
R8151 1k 1/16W :RN-CP
R8157 82k 1/16W :RN-CP
Q8021 2SC2412K
R8131 10k 1/16W :CHIP
R8128 10k 1/16W :CHIP
R8141 3.3k 1/16W :CHIP
D8014 MTZJ-5.1B
C8080 10
C8138 1000p B:CHIP
R8150 100k 1/16W :RN-CP
R8129 2.2k 1/16W :CHIP
R8142 10k 1/16W :CHIP
D8015 1SS133
C8090 1
R8163 47k 1/16W :CHIP
L8017 10 H :LAV35
C8108 10
Q8029 2SC2412K SW
0.5
C8111 1
R8181 47k 1/16W :CHIP
R8183 220k 1/16W :RN-CP
R8219 0.47 :FPRD
NL8001
C8136 0.1 :PT
TO D2/3,D3/3_4
C8072 10
C8075 0.01 25V B:CHIP
IC8006 NJM2903
D8025 1SS133
R8169 47k 1/16W :CHIP
C8103 10
Q8028 2SC2412K SW
C8110 1
R8180 47k 1/16W :CHIP
R8182 220k 1/16W :RN-CP
C8113 0.1 :PT
R8192 15k :RN
R8193 15k :RN
R8194 15k :RN
R8195 15k :RN
R8191 2.2k :RN
R8190 2.7k :RN
R8200 # :RN
CN8023 4P BLK :S-MICRO
ΣIK1
ΣIK2
PROT ON/OFF
GND
•IK CHECK
R8230 300k 1/16W :RN-CP
R8055 220k 1/16W :RN-CP
R8140 10k 1/16W :CHIP
D8043 1SS133
R8139 3.3k 1/16W :CHIP
C8079 10
D8013 MTZJ-5.1B
C8083 0.1 :PT
D8017 #
R8099 100k 1/16W :RN-CP
R8153 1k 1/16W :RN-CP
D8038 RGP10GPKG23
R8223 220k 1/16W :RN-CP
R8218 100k 1/2W
C8129 0.01 :PT
R8102 10k 1/16W :CHIP
VR8002 100k
R8229 # 1/16W :RN-CP
R8231 # :FPRD
CN8021 2P :LARGE
ΔR
ΔR
TO D2/3,D3/3_5
TO D2/3,D3/3_6
B-SS770.<U/C>-D..-P2-05

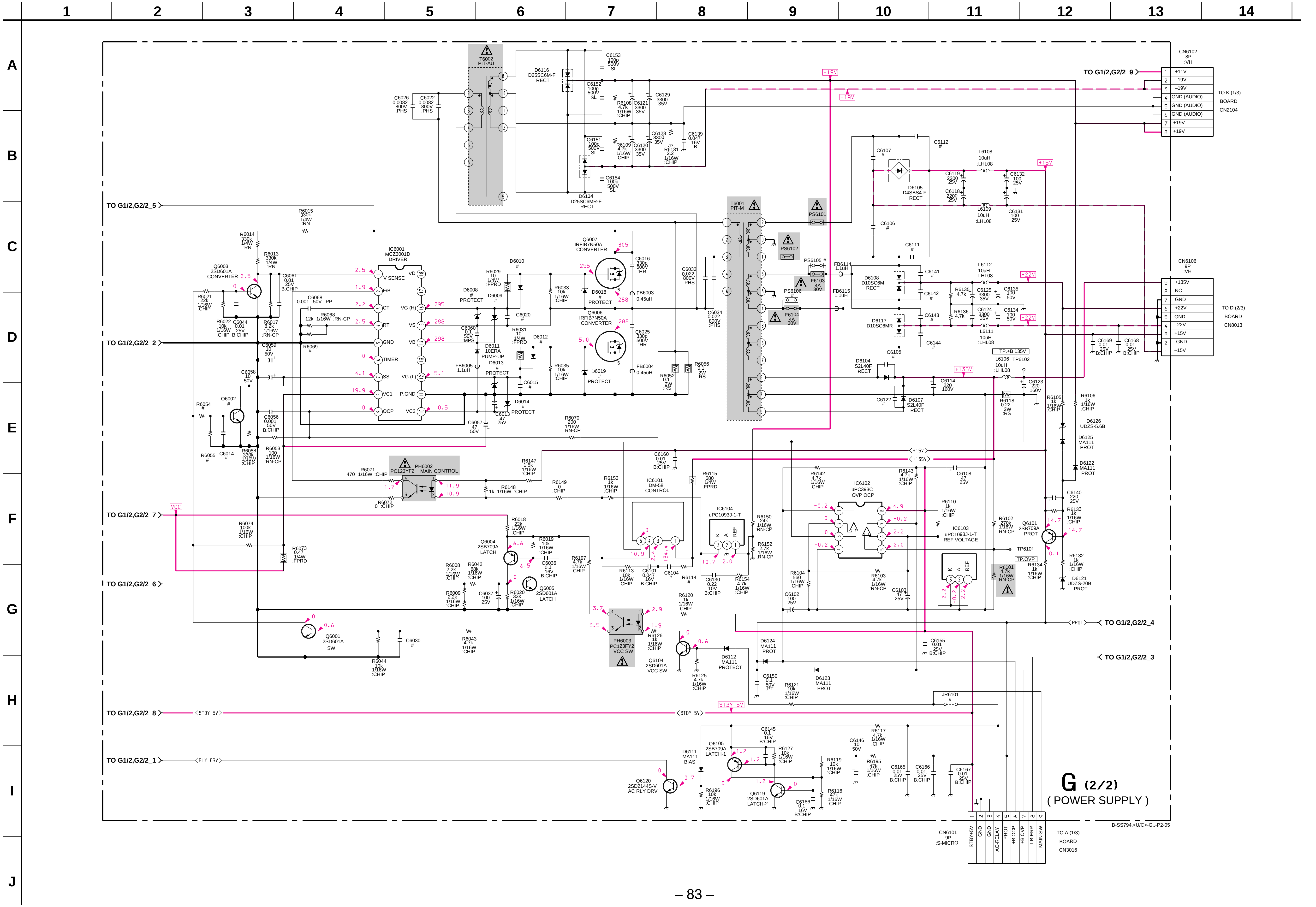
(17) Schematic Diagram of D (3/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
CN8004 10P :B TO B-S
GND
H_CENT
GND
DF_V
GND
DF
GND
+15V
GND
-15V
TO A (1/3) BOARD CN3006
+15V
-15V
CN8003 4P WHT :MINI (LOCK)
G2
DF1
NC
GND
TO D (2/3) BOARD T8005
DET
G2
DF
MV
TO CB BOARD CN3908
TO CG BOARD CN3809
TO CR BOARD CN3707
TO CB BOARD J3901 FV (B)
TO CG BOARD J3801 FV (G)
TO CR BOARD J3701 FV (R)
(FOCUS PACK)
+15V
JW158 JW (5)
JW159 #
R8068 100 1/16W :CHIP
D8005 1SS133 RECT
C8004 220 25V
R8024 10k 1/16W :CHIP
R8010 470k 1/2W
Q8003 2SA1037AK G2-STOP/CONTROL
14.6
14.6
653
0
0
R8021 10k 1/16W :CHIP
D8040 1SS133
C8014 100 25V
R8020 4.7k 1/16W :CHIP
R8023 10k 1/16W :CHIP
D8006 1SS133 LIMIT
Q8002 2SC4634LS-CB11 G2-STOP
TO D1/3,D3/3_1
Q8007 2SC4634LS-CB11 DF V AMP
12V
204
5.8
5.2
R8034 10k 1/16W :CHIP
R8042 2.7k 1/16W :CHIP
6
C8018 10
C8016 100 25V
R8033 10k 1/16W :CHIP
R8062 4.7k 1/2W
R8037 68k 2W :RS
R8065 1k 1/2W
R8030 68k 2W :RS
C8040 0.01 2kV :F
T8001 DFT
+22V
L8009 10µH :LHL08
L8010 47µH :LAV35
C8045 22
C8047 0.01 F:CHIP
C8050 22
C8053 0.01 F:CHIP
Q8010 2SC2412K DF H BUFF
R8104 8.2k 1/16W :CHIP
Q8015 2SC2412K DF H BUFF
Q8009 2SC3421-Y DF H BUFF
3.4
4
4.5
R8096 22 1/16W :CHIP
C8055 0.1 25V F:CHIP
R8112 1.8k 1/16W :CHIP
R8088 2.2 :FPRD
4.5
2.9
2.3
R8111 680 1/16W :CHIP
R8087 2.2 :FPRD
Q8008 2SA1358-Y DF H BUFF
Q8011 2SA1037AK DF H BUFF
3.3
2.8
2.7
R8080 2.2 1W :RS
C8046 22
R8095 22 1/16W :CHIP
2.3
2.3
Q8014 2SC2412K DF H BUFF
C8057 0.47
-20
-20.6
L8006 10µH :LHL08
C8048 22
C8049 0.01 F:CHIP
R8103 390 1/16W :CHIP
R8109 270 1/16W :CHIP
R8110 6.8k
C8052 22
C8054 0.01 F:CHIP
L8012 47µH :LAV35
-22V
DF VCC
+135V
TO D2/3,D3/3_3
C8084 0.022 :PT
R8152 10k 1/16W :RN-CP
R8154 33k 1/16W :RN-CP
R8155 100k :RN
R8156 100k :RN
L8019 HLC
C8117 1000p 500V :E
R8202 270 1/2W
C8071 10
C8069 0.01 25V B:CHIP
R8143 56k 1/16W :RN-CP
C8078 1000p 25V CH:CHIP
R8144 100 1/16W :CHIP
L8016 100µH :LHL08
FB8002 1.1uH
Q8027 2SJ585LS-CC11 SW
135
112.3
131.1
C8093 100 160V
D8024 MTZJ-15B
R8165 4.7k
C8107 0.047 250V :MPS
R8172 100 :FPRD
D8027 D2L20U-TA
FB8021 1.1uH
T8003 HOT
FB8015 MPZ2012S331AT
R8206 0.47 :FPRD
C8121 0.01 2kV :F
D8033 RGP02-17PKG23 BIAS
FB8016 MPZ2012S331AT
R8205 0.47 :FPRD
D8032 RGP10GPKG23 BIAS
C8122 220 16V
FB8017 MPZ2012S331AT
IC8009 LA6500P-FA
98.2
98.2
94.0
97.8
101.1
L8023 10µH :LAV35
D8045 GP08D
R8217 1k 1/16W :CHIP
C8125 0.1 16V B:CHIP
C8132 1000 25V
C8128 # B:CHIP
R8221 # 1/16W :CHIP
CN8019 4P :VH
H_OUT (B)
NC
NC
H_RET (B)
TO DY (B) DY (H)
CN8020 4P :VH
H_OUT (R)
NC
NC
H_RET (R)
TO DY (R) DY (H)
CN8018 4P :VH
H_OUT (G)
NC
NC
H_RET (G)
TO DY (G) DY (H)
12V-2
R8124 0.47 :FPRD
C8063 0.1 16V B:CHIP
R8120 10k 1/16W :CHIP
Q8020 2SC2412K AMP
11.9
7.4
7.2
R8083 1k 1/16W :CHIP
D8046 1SS133
7.4
-0.3
R8121 100 1/16W :CHIP
7.2
7.4
C8116 0.1 16V B:CHIP
R8117 10k 1/16W :CHIP
Q8016 2SC2412K
Q8019 2SA1037AK AMP
R8118 10k 1/16W :CHIP
C8058 220p CH:CHIP
IC8005 BA9759F-E2 H DRIVE
Slow SW
9.1
2.6
5.2
7.1
3.6
3.6
5.6
5.8
7.9
3.8
3.8
3.8
4
3.4
Q8004 2SA1037AK BUFF
R8084 10k 1/16W :CHIP
TO D2/3,D3/3_5
12V
12V-2
L8014 100µH :LAV35
D8011 1SS133
D8010 1SS133
C8074 100 25V
C8077 0.01 25V B:CHIP
C8081 1000p 25V CH:CHIP
C8076 22 25V
R8136 10k 1/16W :CHIP
R8137 100k 1/16W :RN-CP
R8148 100k 1/16W :CHIP
C8082 0.047 16V B:CHIP
R8146 10k 1/16W :RN-CP
C8085 56p CH:CHIP
FB8014 MPZ2012S331AT
R8145 10k 1/16W :RN-CP
D8012 1SS133
EW DRV
C8106 0.1 16V B:CHIP
C8139 10
12V-2
IC8012 NJM2904M (TE2)
2.7
2.1
2.1
R8005 10k 1W :RS
R8210 100 1/16W :CHIP
76.7
Q8039 2SC2688 (5) -LK BUFF
2.7
2.1
R8213 1k 1/16W :CHIP
R8209 10k 1/16W :CHIP
R8220 1k 1/16W :CHIP
C8130 # B:CHIP
R8211 15 3W :RS
C8137 1000 25V
L8022 2.2mH :LHL08
C8135 0.75 250V :PP
R8228 68 1/2W :FPRD
C8133 2.2 250V
H.CENT
R8216 10k 1/16W :CHIP
C8120 0.1 16V B:CHIP
TO D1/3,D3/3_2
TO D2/3,D3/3_4
TO D2/3,D3/3_6
L8026 10µH :LAV35
FB8018 MPZ2012S331AT
12V-2
C8064 10 160V
R8133 12k 3W :RS
R8135 12k 3W :RS
C8061 0.1 16V B:CHIP
R8123 1k 1/16W :CHIP
C8065 0.047 200V :PT
D8047 1SS133
8
68.0
-0.5
Q8030 2SA1037AK H DRIVE
4
3.4
R8119 10k 1/16W :CHIP
H DRV
7
C8059 0.22 16V B:CHIP
R8125 390 1/16W :CHIP
R8126 1.5k 1/16W :CHIP
C8152 # B:CHIP
Q8023 2SC2688 (5) -LK H.DRIVE
R8134 4.7k 1W :RS
C8068 1000p 500V :E
T8002 HDT
10
D8021 PG124S15 DAMPER
Q8024 2SC5681-YB H.OUT
242
0.1
9
R8149 10 3W :RS
FB8019 1.1uH
C8089 100p 2kV :B
C8092 6800p 1.2kV :MPP
C8098 220p 2kV :B
C8097 220p 2kV :B
C8096 0.0022 100V :PT
C8101 # :B
R8175 # 1/16W :CHIP
R8174 4.7k
D8026 MTZJ-5.6B
12V-2
R8189 0.47 :FPRD
Q8031 2SC2412K HP AMP
11.9
0.2
0.6
0.6
0.2
C8115 0.1 16V B:CHIP
R8178 47k 1/16W :CHIP
Q8101 2SA1037AK HP AMP
HP
CN8002 10P :B TO B-S
REG1_MUTE
HV_PROT
GND
ABL
GND
HP
GND
PIN (E-W)
GND
H_DRV
TO A (2/3) BOARD CN3007
D (3/3)
(H DRIVE)
B-SS770.<U/C>-D..-P3-05

(18) Schematic Diagram of G (1/2) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
J
CN6108 # :FASTON (GND)
AC 120V 60Hz
CN6001 2P
AC (N) IN
AC (L) IN
TO A (3/3) BOARD CN3021
CN6103 :FASTON (ANT E)
CN6107 # :FASTON (ANT E)
VD6000 TNR14V471K660
C6001 0.47 250V :AC
R6002 1M 1/2W
R6001 2.2M 1/2W
FH6001
F6001 10A 125V
FH6002
L6001
L6002
C6002 0.22 250V :AC
VD6001 TNR14V471K
C6003 0.0022 250V E
C6038 0.0022 250V E
RY6001
RY6002
C6011 0.0022 250V E
C6039 0.0022 250V E
R6010 2.2 10W :RB
C6006 0.0047 250V F
C6007 0.0047 250V F
D6001 D6SB60LF AC-RECT
C6004 0.0047 250V F
C6005 0.0047 250V F
C6008 1800 250V
C6010 1800 250V
R6006 470k 1/2W
R6003 470k 1/2W
D6003 ERC04-06SE
L6004 100uH
C6012 2.2 450V
R6041 0.1 1/2W :RF
D6002 ERA22-08
D6143 MA111 PROTECT
D6113 MA111 PROTECT
R6004 1k 1/2W :FPRD
R6005 4.7k 1/16W :CHIP
PH6001 PC123FY2 Vcc SW
R6171 22 1W :RS
C6009 # E
D6004 ERC04-06SE
L6003 100uH
R6099 0.47 1/2W :RF
C6018 1 450V
D6015 D2SB60A STBY RECT
TH6001
R6057 4.7 1/4W :FPRD
C6072 10 450V
R6065 820k 1/2W
D6016 UDZS-12B
R6067 47k 1/16W :CHIP
C6065 4.7 50V
R6062 100k 1/16W :CHIP
Q6010 2SD601A SW
R6064 2.2k 1/16W :CHIP
PH6004 PC123FY2 DETECT
R6060 2.2k 1/16W :CHIP
R6111 100 1/16W :CHIP
R6112 100 1/16W :CHIP
STBY 5V
T6003 HST
D6017 DINL20U-TA2
R6059 3.3k 1/16W :CHIP
C6023 22 50V
C6024 22 50V
C6179 330 25V
IC6106 MM1476AF +5V REG
GND
RESET
Cd
VIN
OVP
GND
VOUT
C6137 470 16V
D6145 #
D6146 #
TO G1/2,G2/2_1
TO G1/2,G2/2_2
TO G1/2,G2/2_3
TO G1/2,G2/2_4
TO G1/2,G2/2_5
TO G1/2,G2/2_6
TO G1/2,G2/2_7
TO G1/2,G2/2_8
TO G1/2,G2/2_9
VCC
LB_ERR
D6131 MA111
C6192 0.1 16V B:CHIP
R6177 100 1/16W :CHIP
R6183 10k 1/16W :CHIP
R6180 1k 1/16W :CHIP
R6182 10k 1/16W :CHIP
Q6110 2SB709A LB ERROR SW
R6181 10k 1/16W :CHIP
Q6111 2SD601A LB ERROR SW
C6191 4.7 50V
C6199 0.1 16V B:CHIP
Q6121 2SB709A LOW-B PROT
R6198 10k 1/16W :CHIP
R6199 10k 1/16W :CHIP
D6132 MA111
D6144 MA111
D6133 UDZS-7.5 SUB 6.5V OVP
R6175 0.05 5W :CC
L6102 22uH
R6174 1k 1/16W :CHIP
Q6115 2SB709A 6.5V OCP
C6183 470 16V
D6130 FCQ30A04 6.5V RECT
FB6108 1.1uH
T6004 PIT-S
C6194 #
C6193 #
C6184 3900 10V
C6117 3900 10V
C6195 #
C6196 #
C6185 6800 16V
D6183 D10SC6M RECT
FB6107 1.1uH
FB6103 1.1UH
C6197 #
C6198 #
FB6104 1.1uH
D6115 D10SC6M RECT
L6124 3.3uH :LHL08
C6189 47 25V
C6170 0.01 25V B:CHIP
C6110 3900 10V
L6103 4.7uH :LHL10
C6190 47 25V
C6113 0.01 25V B
+11V
+7V
+6.5V
R6098 330k 1/4W :RN
R6097 330k 1/4W :RN
R6096 330k 1/4W :RN
C6090 0.01 25V B:CHIP
R6092 9.1k 1/16W :RN-CP
C6091 0.001 50V :PP
R6093 15k 1/16W :RN-CP
C6093 10 50V
C6092 4.7 50V
R6076 #
C6095 0.001 50V B:CHIP
R6095 100 1/16W :RN-CP
IC6002 MCZ3001D DRIVER
V SENSE
F/B
CT
RT
GND
TIMER
SS
VC1
OCP
VD
VG (H)
VS
VB
VG (L)
P.GND
VC2
R6007 1k 1/4W :FPRD
D6034 # PROTECT
D6006 #
R6091 10 1/4W :FPRD
R6090 10k 1/16W :CHIP
C6097 0.1 50V :MPS
D6007 10ERA PUMP-UP
FB6018 1.1uH
D6099 # PROTECT
R6089 10 1/4W :FPRD
R6088 10k 1/16W :CHIP
C6099 47 25V
D6024 # PROTECT
R6094 33 1/16W :RN-CP
C6094 100 35V
C6080 47 25V
Q6008 2SK2876-F122 CONVERTER
D6061 MTZJ-T-20B
Q6009 2SK2876-F122 CONVERTER
D6062 MTZJ-T-20B
C6089 220p 1kV SL
FB6019 0.45uH
C6088 220p 1kV SL
FB6020 0.45uH
C6017 0.01 800V :MPP
R6084 0.33 2W :RS
R6083 0.33 2W :RS
D6050 MA111
D6051 MA111
D6048 D1NL20U VCC-RECT
D6049 D1NL20U VCC RECT
R6082 10 1/4W :FPRD
R6081 10 1/4W :FPRD
C6086 220 35V
C6085 100 35V
R6080 470 1/16W :CHIP
C6087 #
R6079 0 :CHIP
PH6005 PC123FY2 SUB ISOLATION
IC6107 uPC1093J-1-T SUB CONTROL
K
A
REF
R6169 2.2k 1/16W :CHIP
R6168 1k 1/16W :CHIP
R6167 0 :CHIP
R6166 1k 1/16W :CHIP
C6115 0.1 50V :MPS
R6165 4.7k 1/16W :RN-CP
R6163 8.2k 1/16W :RN-CP
R6162 100 1/4W :FPRD
R6164 #
C6116 #
R6184 100 1/16W :CHIP
R6178 47k 1/16W :CHIP
CN6104 10P :S-MICRO
1 +11V
2 7V
3 7V
4 GND
5 GND
6 NC
7 GND
8 6.5V
9 6.5V
10 GND
TO A (1/3) BOARD CN3014
G (1/2)
(POWER SUPPLY)
B-SS794.<U/C>-G..-P1-05

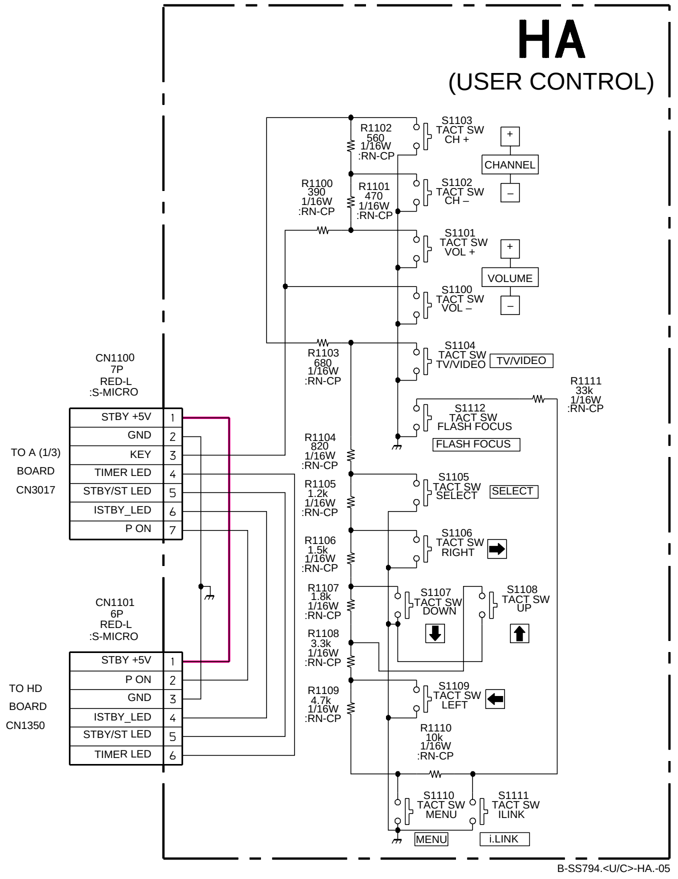
(19) Schematic Diagram of G (2/2) Board

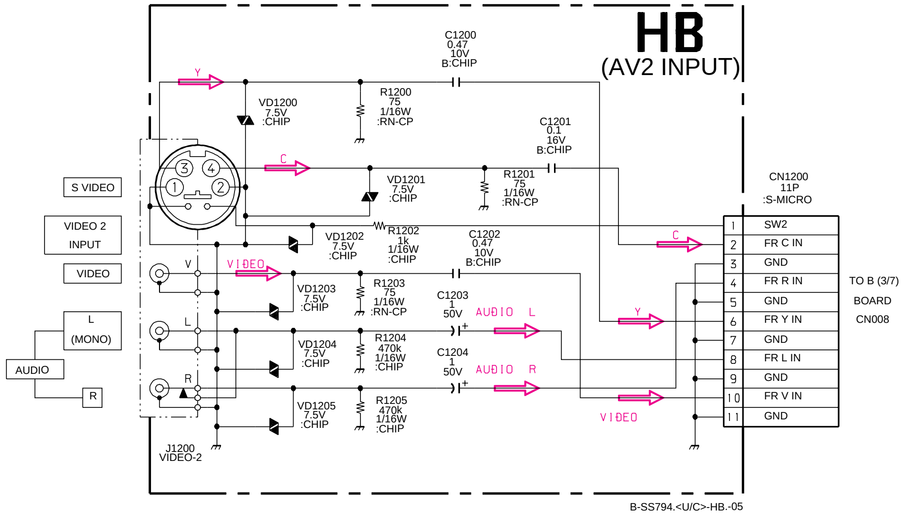

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
T6002 PIT-AU
D6116 D25SC6M-F RECT
C6153 100p 500V SL
C6152 100p 500V SL
C6026 0.0082 800V :PHS
C6022 0.0082 800V :PHS
R6108 4.7k 1/16W :CHIP
C6121 3300 35V
C6129 3300 35V
C6151 100p 500V SL
R6109 4.7k 1/16W :CHIP
C6120 3300 35V
C6128 3300 35V
R6131 2.2 1/16W :CHIP
C6139 0.047 16V B
C6154 100p 500V SL
D6114 D25SC6MR-F RECT
+19V
-19V
TO G1/2,G2/2_9
CN6102 8P :VH
+11V
-19V
-19V
GND (AUDIO)
GND (AUDIO)
GND (AUDIO)
+19V
+19V
TO K (1/3) BOARD CN2104
C6107
C6112
L6108 10uH :LHL08
+15V
C6119 2200 25V
C6132 100 25V
C6118 2200 25V
D6105 D4SBS4-F RECT
L6109 10uH :LHL08
C6131 100 25V
C6106
C6111
TO G1/2,G2/2_5
R6015 330k 1/4W :RN
R6014 330k 1/4W :RN
R6013 330k 1/4W :RN
Q6003 2SD601A CONVERTER
R6021 22k 1/16W :CHIP
R6022 10k 1/16W :CHIP
C6044 0.01 25V B:CHIP
R6017 8.2k 1/16W :RN-CP
C6061 0.01 25V B:CHIP
C6068 0.001 50V :PP
R6068 12k 1/16W :RN-CP
IC6001 MCZ3001D DRIVER
V SENSE
F/B
CT
RT
GND
TIMER
SS
VC1
OCP
VD
VG (H)
VS
VB
VG (L)
P.GND
VC2
D6010
R6029 10 1/4W :FPRD
D6008 PROTECT
D6009
C6020
C5060 0.1 50V :MPS
R6031 10 1/4W :FPRD
D6011 10ERA PUMP-UP
D6012
D6013 PROTECT
C6015
D6014 PROTECT
C6013 47 25V
C6057 47 50V
FB6005 1.1uH
Q6007 IRFIB7N50A CONVERTER
D6018 PROTECT
R6033 10k 1/16W :CHIP
Q6006 IRFIB7N50A CONVERTER
D6019 PROTECT
R6035 10k 1/16W :CHIP
C6016 330p 500V :HR
FB6003 0.45uH
C6025 330p 500V :HR
FB6004 0.45uH
C6033 0.022 800V :PHS
C6034 0.022 800V :PHS
R6052 0.1 2W :RS
R6056 0.1 2W :RS
T6001 PIT-M
PS6101
PS6102
PS6105
F6103 4A 30V
PS6106
F6104 4A 30V
FB6114 1.1uH
FB6115 1.1uH
D6108 D10SC6M RECT
D6117 D10SC6MR
C6141
C6142
C6143
C6144
L6112 10uH :LHL08
R6135 4.7k
C6125 3300 35V
C6135 100 50V
+22V
R6136 4.7k
C6124 3300 35V
C6134 100 50V
-22V
L6111 10uH :LHL08
CN6106 9P :VH
+135V
NC
GND
+22V
GND
-22V
+15V
GND
-15V
TO D (2/3) BOARD CN8013
C6169 0.01 25V B:CHIP
C6168 0.01 25V B:CHIP
TP,+B 135V
L6106 10uH :LHL08
TP6102
C6105
D6104 S2L40F RECT
+135V
C6114 220 160V
C6123 220 160V
C6122
D6107 S2L40F RECT
R6118 0.22 2W :RS
R6105 1k 1/16W :CHIP
R6106 1k 1/16W :CHIP
D6126 UDZS-5.6B
D6125 MA111 PROT
D6122 MA111 PROT
TO G1/2,G2/2_2
C6059 10 50V
R6069
C6058 10 50V
Q6002
R6054
C6056 0.001 50V B:CHIP
R6055
C6014
R6058 330k 1/16W :CHIP
R6053 100 1/16W :RN-CP
R6070 200 1/16W :RN-CP
R6071 470 1/16W :CHIP
PH6002 PC123YF2 MAIN CONTROL
R6072 0 :CHIP
R6147 1.5k 1/16W :CHIP
R6148 1k 1/16W :CHIP
R6149 0 :CHIP
R6153 1k 1/16W :CHIP
C6160 0.01 25V B:CHIP
IC6101 DM-58 CONTROL
R6115 680 1/4W :FPRD
IC6104 uPC1093J-1-T
R6150 24k 1/16W :RN-CP
R6152 2.7k 1/16W :RN-CP
R6142 4.7k 1/16W :CHIP
IC6102 uPC393C OVP OCP
R6143 4.7k 1/16W :CHIP
C6108 47 25V
R6110 1k 1/16W :CHIP
IC6103 uPC1093J-1-T REF VOLTAGE
TP6101
TP_OVP
R6102 270k 1/16W :RN-CP
Q6101 2SB709A PROT
C6140 220 25V
R6133 1k 1/16W :CHIP
R6132 1k 1/16W :CHIP
R6134 1k 1/16W :CHIP
D6121 UDZS-20B PROT
R6101 4.7k 1/16W :RN-CP
R6104 560 1/16W :CHIP
C6102 100 25V
R6103 4.7k 1/16W :RN-CP
C6103 47 25V
TO G1/2,G2/2_7
VCC
R6074 100k 1/16W :CHIP
R6073 0.47 1/4W :FPRD
R6018 22k 1/16W :CHIP
Q6004 2SB709A LATCH
R6019 10k 1/16W :CHIP
C6036 0.1 16V B:CHIP
R6008 2.2k 1/16W :CHIP
R6042 68k 1/16W :CHIP
TO G1/2,G2/2_6
R6009 2.2k 1/16W :CHIP
C6037 100 25V
R6020 33k 1/16W :CHIP
Q6005 2SD601A LATCH
R6197 4.7k 1/16W :CHIP
R6113 10k 1/16W :CHIP
C6101 0.047 16V B:CHIP
C6104
R6114
C6130 0.22 10V B:CHIP
R6154 4.7k 1/16W :CHIP
R6120 1k 1/16W :CHIP
Q6001 2SD601A SW
C6030
R6043 4.7k 1/16W :CHIP
R6044 10k 1/16W :CHIP
PH6003 PC123FY2 VCC SW
R6126 1k 1/16W :CHIP
Q6104 2SD601A VCC SW
R6125 4.7k 1/16W :CHIP
D6112 MA111 PROTECT
D6124 MA111 PROT
C6150 0.1 50V :PT
R6121 10k 1/16W :CHIP
D6123 MA111 PROT
C6155 0.01 25V B:CHIP
PROT
TO G1/2,G2/2_4
TO G1/2,G2/2_3
JR6101
TO G1/2,G2/2_8
STBY 5V
TO G1/2,G2/2_1
RLY DRV
C6145 0.1 16V B:CHIP
Q6105 2SB709A LATCH-1
R6127 10k 1/16W :CHIP
D6111 MA111 BIAS
Q6120 2SD2144S-V AC RLY DRV
R6196 10k 1/16W :CHIP
Q6119 2SD601A LATCH-2
C6186 0.1 16V B:CHIP
C6146 10 50V
R6117 4.7k 1/16W :CHIP
R6119 100 1/16W :CHIP
R6195 47k 1/16W :CHIP
R6116 47k 1/16W :CHIP
C6165 0.01 25V B:CHIP
C6166 0.01 25V B:CHIP
C6167 0.01 25V B:CHIP
G (2/2)
(POWER SUPPLY)
CN6101 9P :S-MICRO
STBY 5V
GND
GND
AC RELAY
PROT
+B OCP
+B OVP
LB-ERR
MAIN-SW
TO A (1/3) BOARD CN3016
B-SS794.<U/C>-G..-P2-05

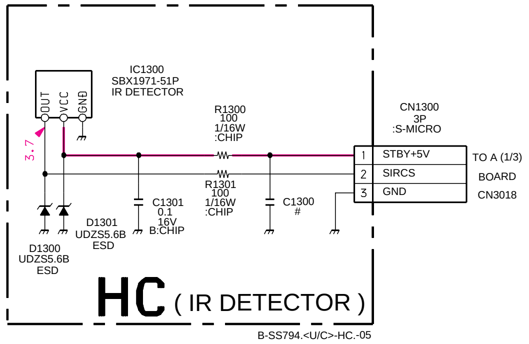
(20) Schematic Diagrams of HA, HB, HC and HD Boards

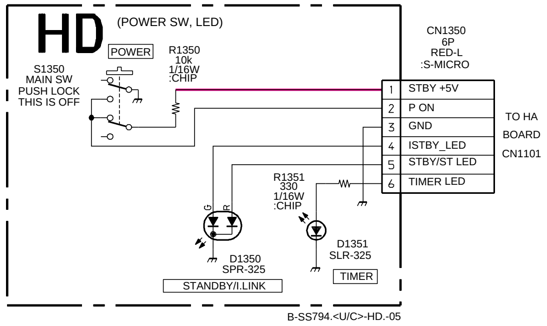
1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I

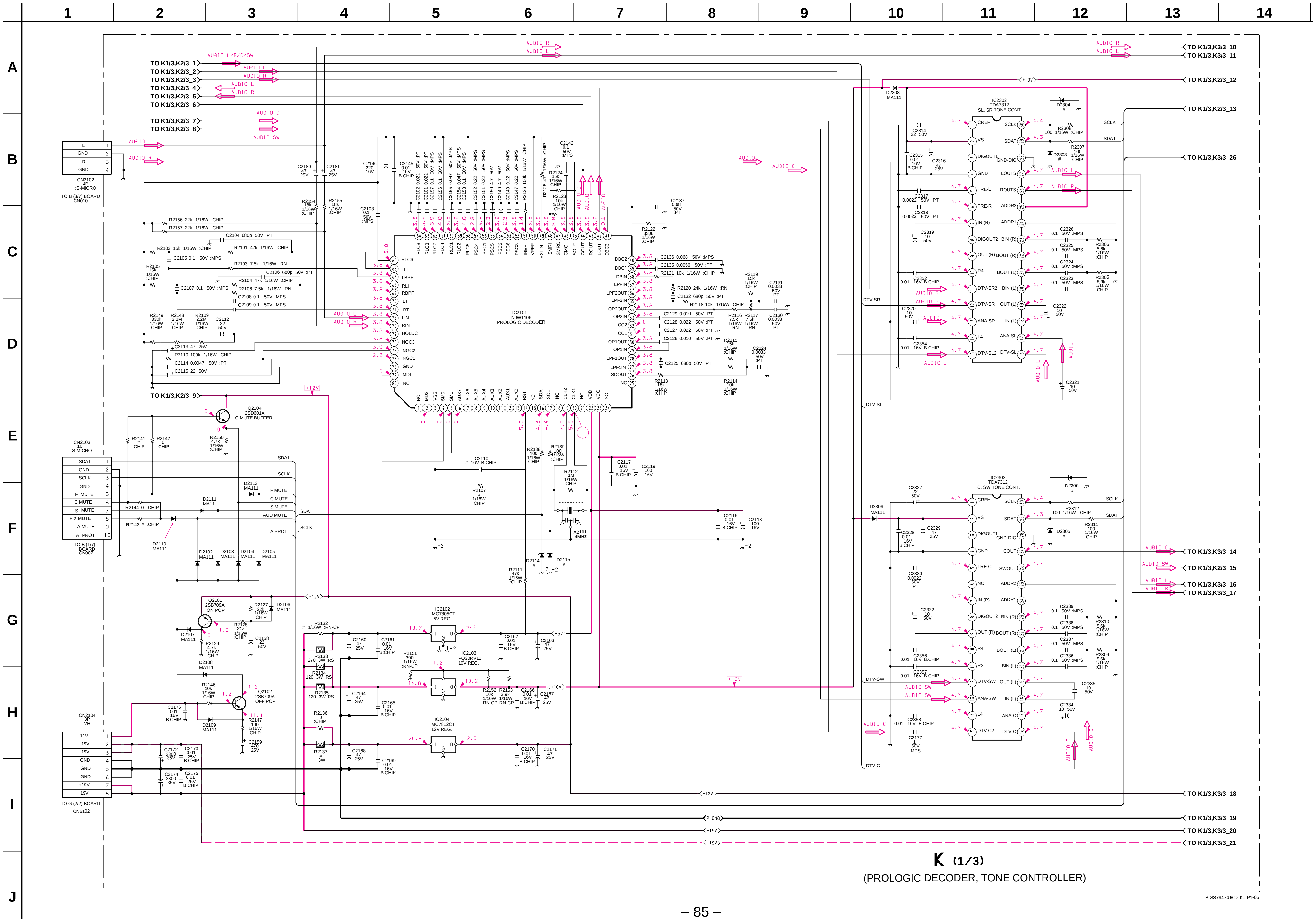

HA
(USER CONTROL)
CN1100
7P
RED-L
:S-MICRO
TO A (1/3)
BOARD
CN3017
STBY +5V
GND
KEY
TIMER LED
STBY/ST LED
ISTBY_LED
P ON
CN1101
6P
RED-L
:S-MICRO
TO HD
BOARD
CN1350
STBY +5V
P ON
GND
ISTBY_LED
STBY/ST LED
TIMER LED
R1102 560 1/16W :RN-CP
S1103 TACT SW CH +
CHANNEL
R1100 390 1/16W :RN-CP
R1101 470 1/16W :RN-CP
S1102 TACT SW CH –
S1101 TACT SW VOL +
VOLUME
S1100 TACT SW VOL –
R1103 680 1/16W :RN-CP
S1104 TACT SW TV/VIDEO
TV/VIDEO
R1111 33k 1/16W :RN-CP
S1112 TACT SW FLASH FOCUS
FLASH FOCUS
R1104 820 1/16W :RN-CP
R1105 1.2k 1/16W :RN-CP
S1105 TACT SW SELECT
SELECT
R1106 1.5k 1/16W :RN-CP
S1106 TACT SW RIGHT
R1107 1.8k 1/16W :RN-CP
S1107 TACT SW DOWN
S1108 TACT SW UP
R1108 3.3k 1/16W :RN-CP
R1109 4.7k 1/16W :RN-CP
S1109 TACT SW LEFT
R1110 10k 1/16W :RN-CP
S1110 TACT SW MENU
S1111 TACT SW ILINK
MENU
i.LINK
B-SS794.<U/C>-HA.-05


HB
(AV2 INPUT)
S VIDEO
VIDEO 2 INPUT
VIDEO
L (MONO)
AUDIO
R
J1200 VIDEO-2
VD1200 7.5V :CHIP
R1200 75 1/16W :RN-CP
C1200 0.47 10V B:CHIP
C1201 0.1 16V B:CHIP
VD1201 7.5V :CHIP
R1201 75 1/16W :RN-CP
VD1202 7.5V :CHIP
R1202 1k 1/16W :CHIP
C1202 0.47 10V B:CHIP
VD1203 7.5V :CHIP
R1203 75 1/16W :RN-CP
C1203 1 50V
VD1204 7.5V :CHIP
R1204 470k 1/16W :CHIP
C1204 1 50V
VD1205 7.5V :CHIP
R1205 470k 1/16W :CHIP
Y
C
VIDEO
AUDIO L
AUDIO R
CN1200
11P
:S-MICRO
SW2
FR C IN
GND
FR R IN
GND
FR Y IN
GND
FR L IN
GND
FR V IN
GND
TO B (3/7)
BOARD
CN008
B-SS794.<U/C>-HB.-05


IC1300
SBX1971-51P
IR DETECTOR
OUT
VCC
GND
3.7
R1300 100 1/16W :CHIP
R1301 100 1/16W :CHIP
C1301 0.1 16V B:CHIP
C1300 #
D1300 UDZS5.6B ESD
D1301 UDZS5.6B ESD
CN1300
3P
:S-MICRO
STBY+5V
SIRCS
GND
TO A (1/3)
BOARD
CN3018
HC (IR DETECTOR)
B-SS794.<U/C>-HC.-05


HD
(POWER SW, LED)
POWER
S1350
MAIN SW
PUSH LOCK
THIS IS OFF
R1350 10k 1/16W :CHIP
R1351 330 1/16W :CHIP
D1350 SPR-325
D1351 SLR-325
STANDBY/I.LINK
TIMER
CN1350
6P
RED-L
:S-MICRO
STBY +5V
P ON
GND
ISTBY_LED
STBY/ST LED
TIMER LED
TO HA
BOARD
CN1101
B-SS794.<U/C>-HD.-05

(21) Schematic Diagram of K (1/3) Board

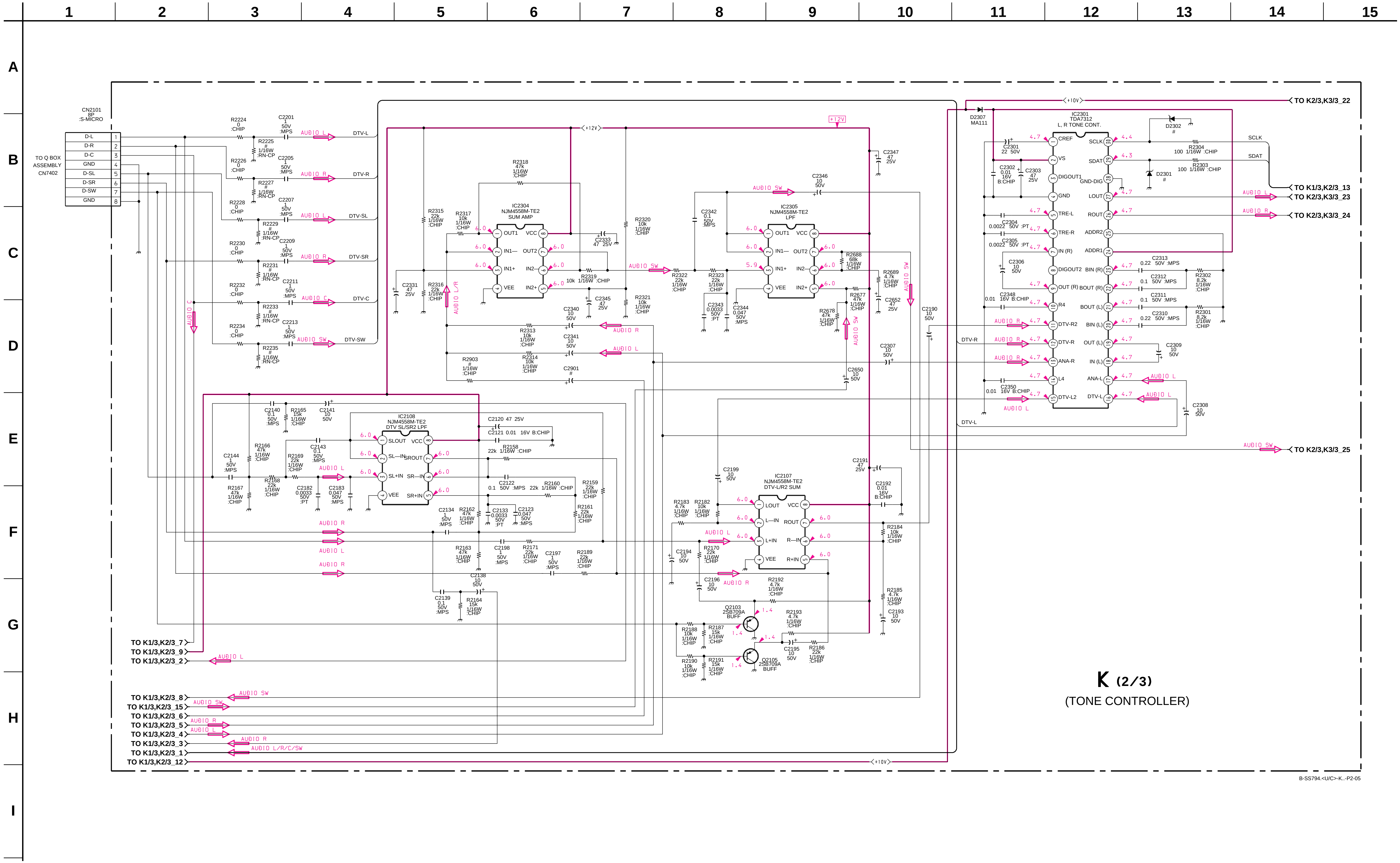

1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
TO K1/3,K2/3_1
TO K1/3,K2/3_2
TO K1/3,K2/3_3
TO K1/3,K2/3_4
TO K1/3,K2/3_5
TO K1/3,K2/3_6
TO K1/3,K2/3_7
TO K1/3,K2/3_8
TO K1/3,K2/3_9
TO K1/3,K3/3_10
TO K1/3,K3/3_11
TO K1/3,K2/3_12
TO K1/3,K2/3_13
TO K1/3,K3/3_26
TO K1/3,K3/3_14
TO K1/3,K2/3_15
TO K1/3,K3/3_16
TO K1/3,K3/3_17
TO K1/3,K3/3_18
TO K1/3,K3/3_19
TO K1/3,K3/3_20
TO K1/3,K3/3_21
AUDIO L/R/C/SW
AUDIO L
AUDIO R
AUDIO C
AUDIO SW
CN2102 4P :S-MICRO
TO B (3/7) BOARD CN010
CN2103 10P :S-MICRO
TO B (1/7) BOARD CN007
CN2104 8P :VH
TO G (2/2) BOARD CN6102
SDAT
SCLK
F MUTE
C MUTE
S MUTE
FIX MUTE
A MUTE
A PROT
AUD MUTE
IC2101 NJW1106 PROLOGIC DECODER
IC2302 TDA7312 SL, SR TONE CONT.
IC2303 TDA7312 C, SW TONE CONT.
IC2102 MC7805CT 5V REG.
IC2103 PQ30RV11 10V REG.
IC2104 MC7812CT 12V REG.
Q2104 2SD601A C MUTE BUFFER
Q2101 2SB709A ON POP
Q2102 2SB709A OFF POP
X2101 4MHz
D2308 MA111
D2309 MA111
+12V
+10V
+5V
+19V
-19V
P-GND
DTV-SR
DTV-SL
DTV-SW
DTV-C

K (1/3)

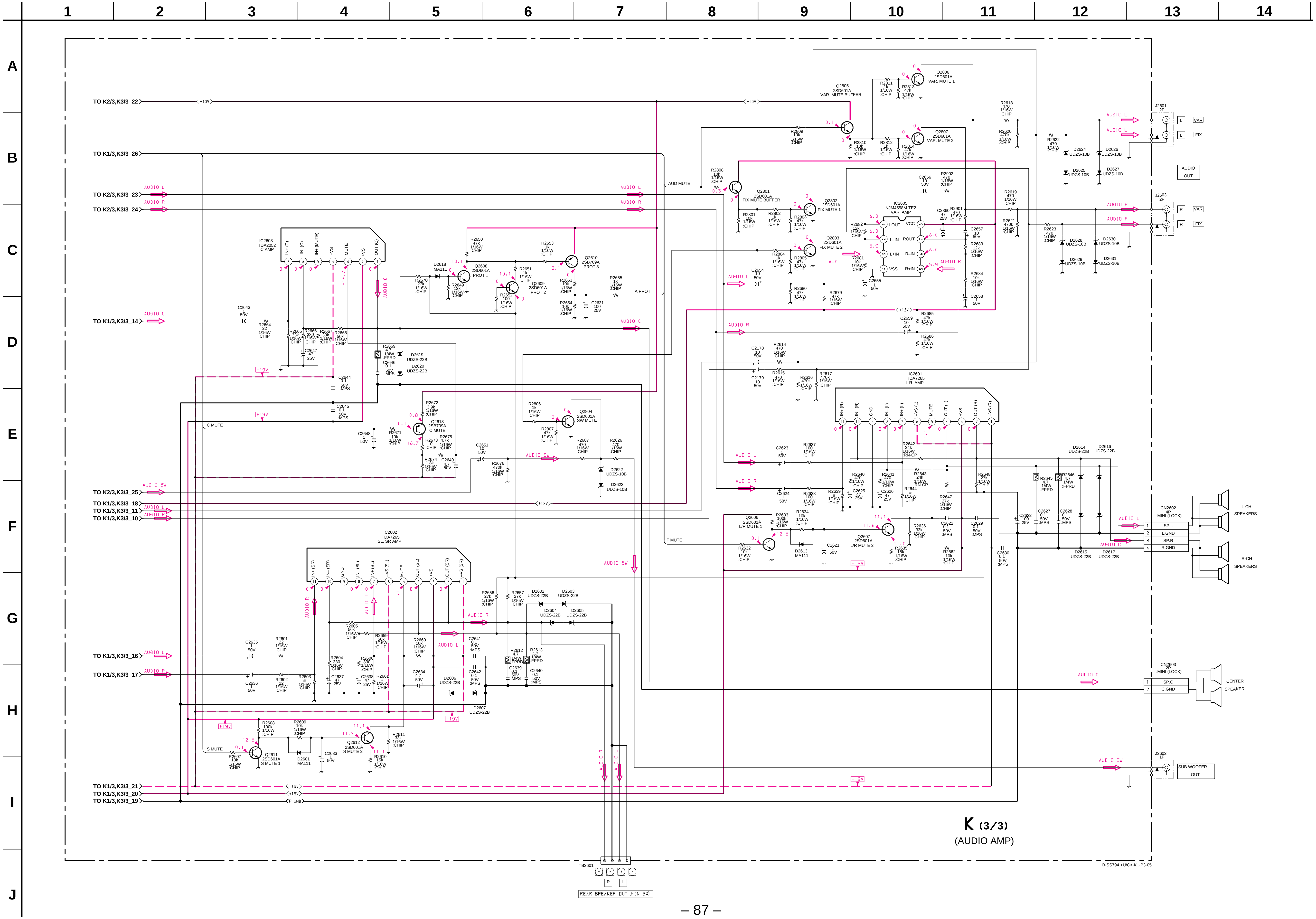
(PROLOGIC DECODER, TONE CONTROLLER)

B-SS794.<U/C>-K..-P1-05

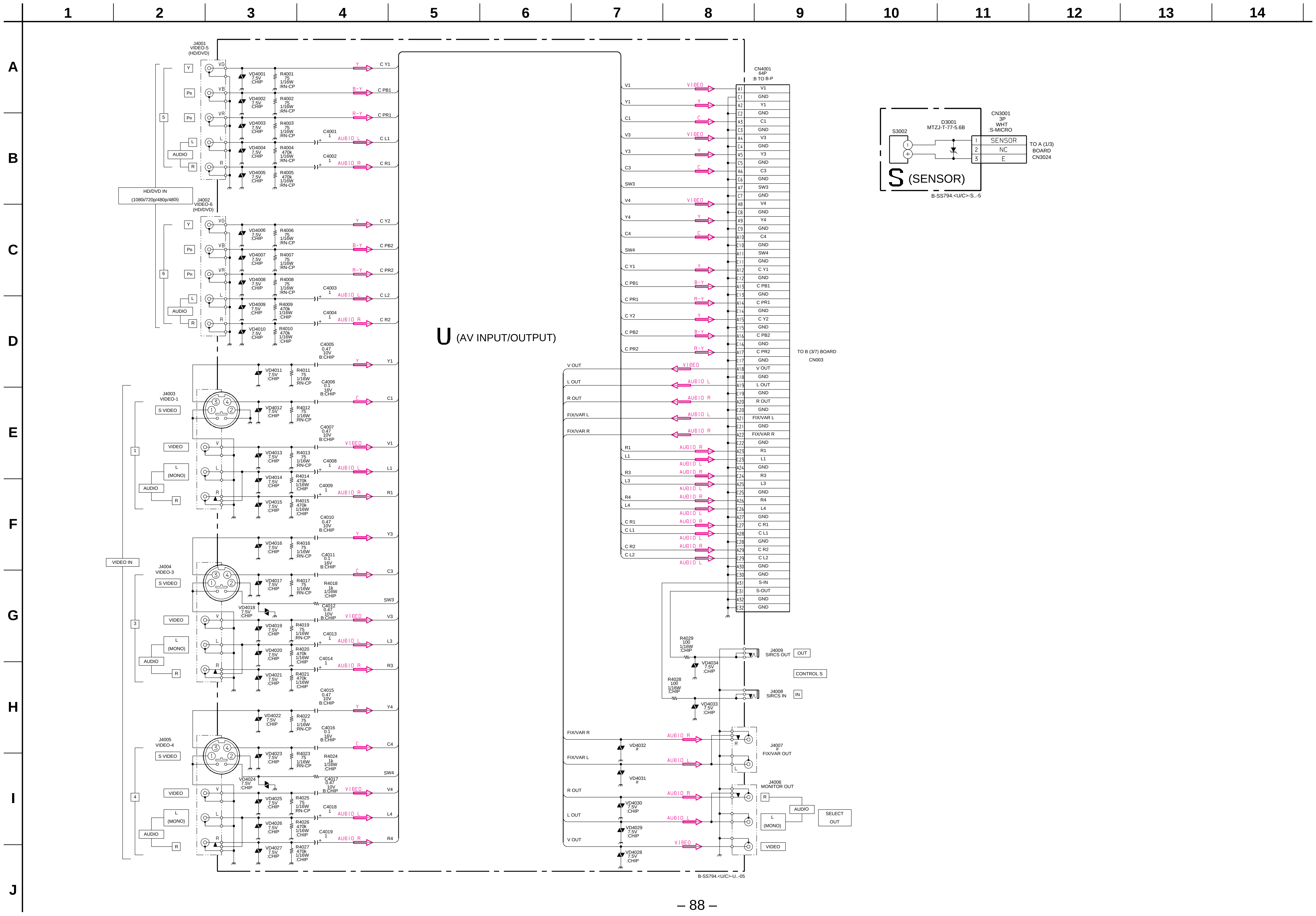
(22) Schematic Diagram of K (2/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
A
B
C
D
E
F
G
H
I
CN2101 8P :S-MICRO
TO Q BOX ASSEMBLY CN7402
D-L
D-R
D-C
GND
D-SL
D-SR
D-SW
GND
DTV-L
DTV-R
DTV-SL
DTV-SR
DTV-C
DTV-SW
AUDIO L
AUDIO R
AUDIO C
AUDIO SW
AUDIO L/R
+12V
+10V
IC2304 NJM4558M-TE2 SUM AMP
IC2305 NJM4558M-TE2 LPF
IC2108 NJM4558M-TE2 DTV SL/SR2 LPF
IC2107 NJM4558M-TE2 DTV-L/R2 SUM
IC2301 TDA7312 L, R TONE CONT.
D2307 MA111
D2302
D2301
Q2103 2SB709A BUFF
Q2105 2SB709A BUFF
SCLK
SDAT
TO K2/3,K3/3_22
TO K1/3,K2/3_13
TO K2/3,K3/3_23
TO K2/3,K3/3_24
TO K2/3,K3/3_25
TO K1/3,K2/3_7
TO K1/3,K2/3_9
TO K1/3,K2/3_2
TO K1/3,K2/3_8
TO K1/3,K2/3_15
TO K1/3,K2/3_6
TO K1/3,K2/3_5
TO K1/3,K2/3_4
TO K1/3,K2/3_3
TO K1/3,K2/3_1
TO K1/3,K2/3_12
AUDIO L/R/C/SW
K (2/3)
(TONE CONTROLLER)
B-SS794.<U/C>-K..-P2-05

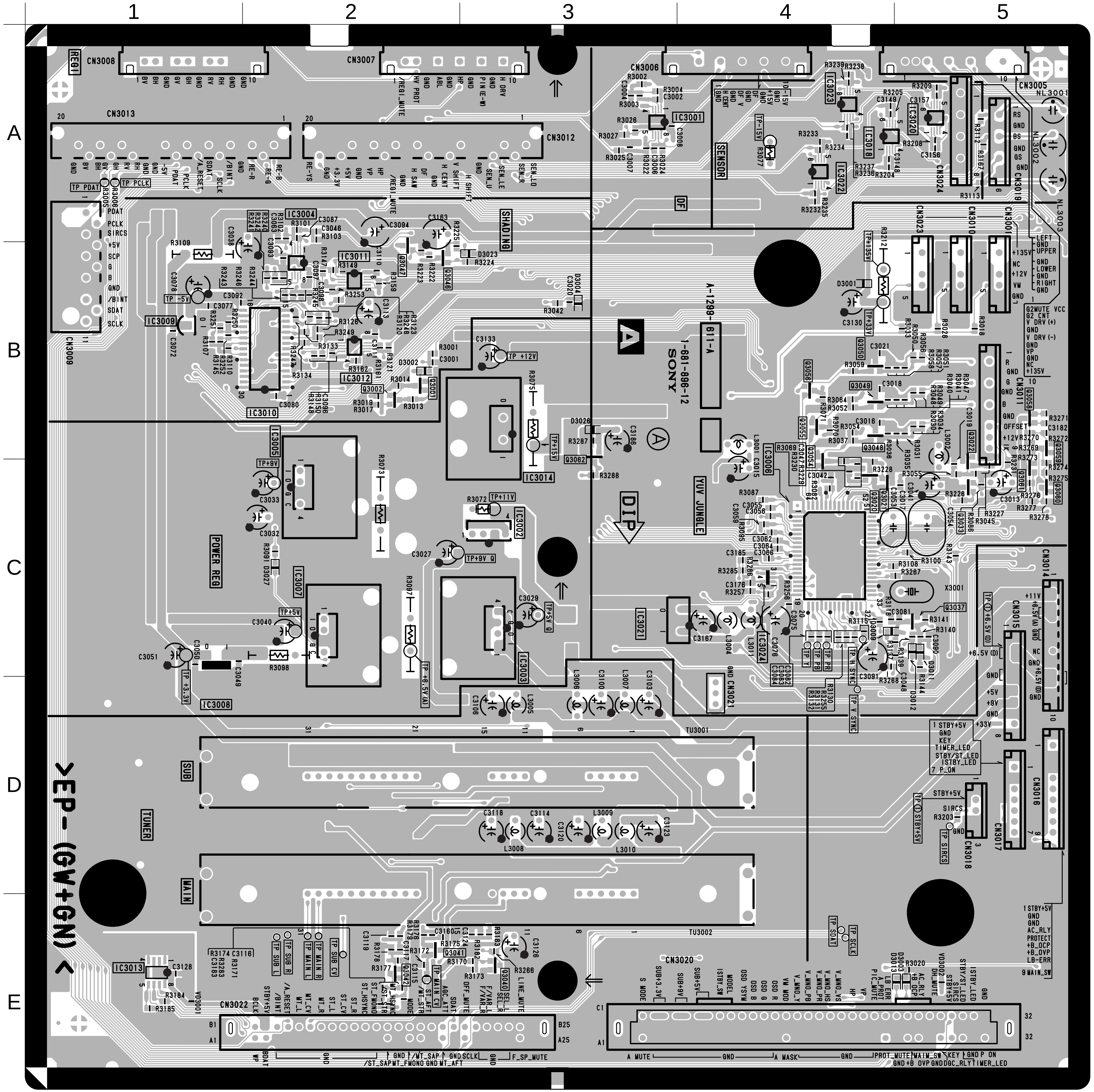
(23) Schematic Diagram of K (3/3) Board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
TO K2/3,K3/3_22
TO K1/3,K3/3_26
TO K2/3,K3/3_23
TO K2/3,K3/3_24
TO K1/3,K3/3_14
TO K2/3,K3/3_25
TO K1/3,K3/3_18
TO K1/3,K3/3_11
TO K1/3,K3/3_10
TO K1/3,K3/3_16
TO K1/3,K3/3_17
TO K1/3,K3/3_21
TO K1/3,K3/3_20
TO K1/3,K3/3_19
AUDIO L
AUDIO R
AUDIO C
AUDIO SW
+10V
+12V
+19V
-19V
P-GND
IC2603
TDA2052
C AMP
IC2602
TDA7265
SL, SR AMP
IC2601
TDA7265
L.R. AMP
IC2605
NJM4558M-TE2
VAR. AMP
Q2805
2SD601A
VAR. MUTE BUFFER
Q2806
2SD601A
VAR. MUTE 1
Q2807
2SD601A
VAR. MUTE 2
Q2801
2SD601A
FIX MUTE BUFFER
Q2802
2SD601A
FIX MUTE 1
Q2803
2SD601A
FIX MUTE 2
Q2608
2SD601A
PROT 1
Q2609
2SD601A
PROT 2
Q2610
2SB709A
PROT 3
Q2613
2SB709A
C MUTE
Q2804
2SD601A
SW MUTE
Q2606
2SD601A
L/R MUTE 1
Q2607
2SD601A
L/R MUTE 2
Q2611
2SD601A
S MUTE 1
Q2612
2SD601A
S MUTE 2
AUD MUTE
A PROT
C MUTE
F MUTE
S MUTE
J2601
2P
VAR
FIX
AUDIO
OUT
J2603
2P
CN2602
4P
:MINI (LOCK)
SP.L
L.GND
SP.R
R.GND
L-CH
SPEAKERS
R-CH
SPEAKERS
CN2603
2P
:MINI (LOCK)
SP.C
C.GND
CENTER
SPEAKER
J2602
1P
SUB WOOFER
OUT
TB2601
R
L
REAR SPEAKER OUT (MIN 8Ω)
K (3/3)
(AUDIO AMP)
B-SS794.<U/C>-K..-P3-05

(24) Schematic Diagrams of S and U Boards


1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
U (AV INPUT/OUTPUT)
S (SENSOR)
J4001 VIDEO-5 (HD/DVD)
J4002 VIDEO-6 (HD/DVD)
HD/DVD IN (1080i/720p/480p/480i)
J4003 VIDEO-1
J4004 VIDEO-3
J4005 VIDEO-4
VIDEO IN
S VIDEO
VIDEO
AUDIO
L (MONO)
R
CN4001 64P :B TO B-P
TO B (3/7) BOARD CN003
J4009 SIRCS OUT
J4008 SIRCS IN
CONTROL S
OUT
IN
J4007 FIX/VAR OUT
J4006 MONITOR OUT
SELECT OUT
S3002
D3001 MTZJ-T-77-5.6B
CN3001 3P WHT :S-MICRO
SENSOR
NC
E
TO A (1/3) BOARD CN3024
B-SS794.<U/C>-S..-5
B-SS794.<U/C>-U..-05

— A BOARD (Component Side) —


1
2
3
4
5
A
B
C
D
E
CN3008
CN3007
CN3006
CN3005
CN3013
CN3012
CN3009
SHADING
SENSOR
POWER REG
YUV JUNGLE
DIP
A-1299-611-A
1-681-886-12
SONY
A
SUB
TUNER
MAIN
TU3001
TU3002
CN3020
CN3022
CN3014
CN3015
CN3016
CN3017
CN3018
CN3021
>EP- (GW+GN)<

A [VIDEO PROCESSOR, TUNER, SHADING]

- **A BOARD SEMICONDUCTOR LOCATION (Component Side)**

IC	
IC3001	A-3
IC3002	C-3
IC3003	C-3
IC3004	B-2
IC3005	C-2
IC3006	C-4
IC3007	C-2
IC3008	C-1
IC3009	B-1
IC3010	B-2
IC3011	B-2
IC3012	B-2
IC3013	E-1
IC3014	B-3
IC3018	A-4
IC3020	A-5
IC3021	C-4
IC3022	A-4
IC3023	A-4
IC3024	C-4

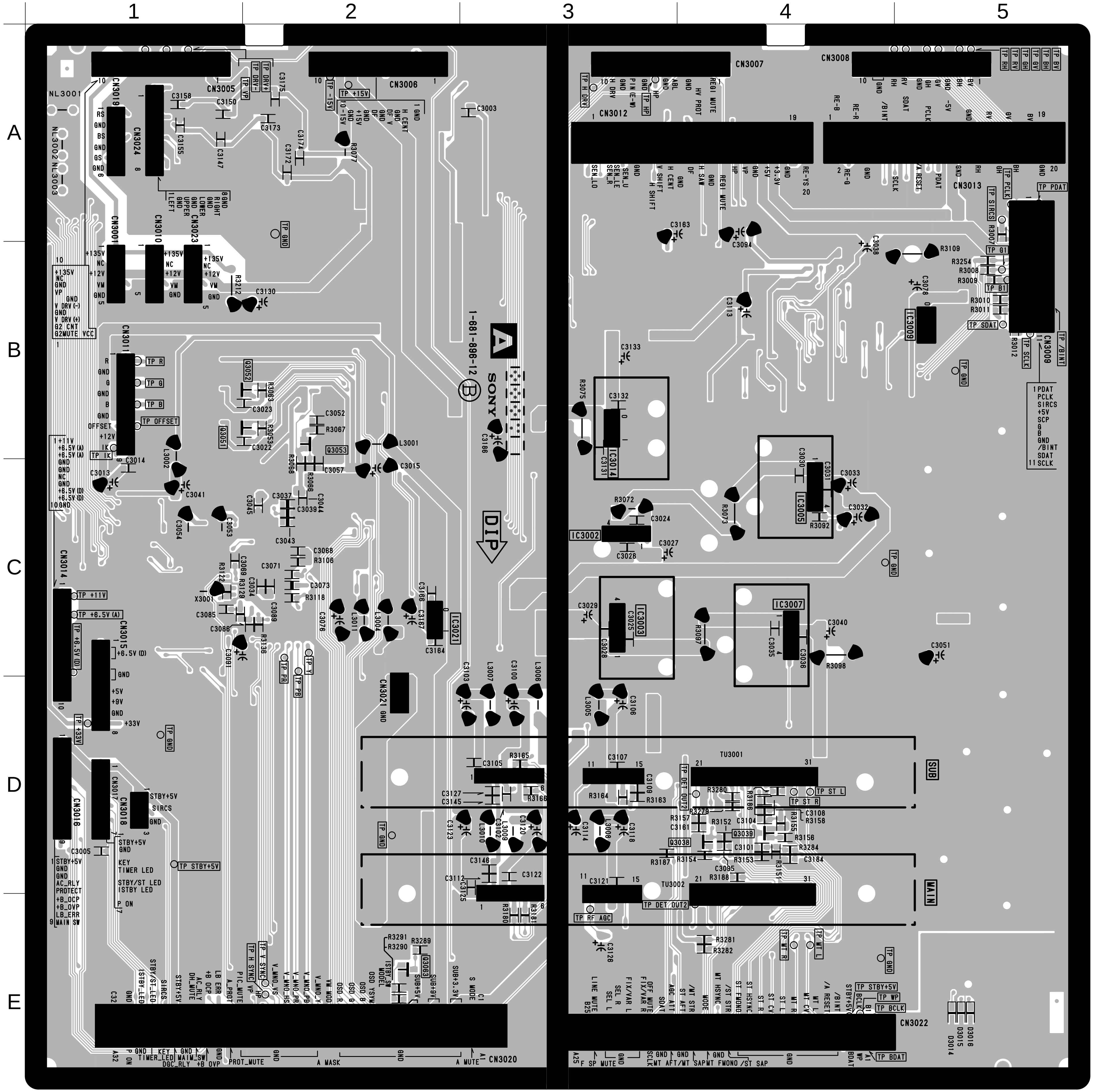
TRANSISTOR		✱
Q3001	B-2	②
Q3002	B-2	②
Q3020	C-4	②
Q3021	C-4	②
Q3022	C-5	②
Q3033	C-5	②
Q3037	C-5	②
Q3040	E-3	②
Q3041	E-2	②
Q3042	E-2	②
Q3046	B-2	②
Q3047	B-2	②
Q3048	B-4	②
Q3049	B-4	②
Q3050	B-4	②
Q3054	C-4	②
Q3055	B-4	②
Q3056	B-4	②
Q3058	B-5	②
Q3059	B-5	②
Q3060	C-5	②
Q3061	C-5	②
Q3062	B-3	②

DIODE		✱
D3001	B-4	③
D3002	B-2	③
D3003	E-5	③
D3004	B-3	③
D3009	C-4	③
D3011	C-5	③
D3012	C-5	③
D3013	E-5	③
D3023	B-3	③
D3026	B-3	③

CRYSTAL	
X3001	C-5

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

— A BOARD (Conductor Side) —


1
2
3
4
5
A
B
C
D
E
CN3005
CN3006
CN3007
CN3008
CN3012
CN3013
CN3019
CN3024
CN3001
CN3010
CN3023
CN3011
CN3014
CN3015
CN3016
CN3017
CN3018
CN3009
CN3021
CN3020
CN3022
IC3002
IC3003
IC3005
IC3007
IC3009
IC3014
IC3021
TU3001
TU3002
SUB
MAIN
X3001
1-681-898-12
A
SONY
DIP
NL3001
NL3002
NL3003

A [VIDEO PROCESSOR, TUNER, SHADING]

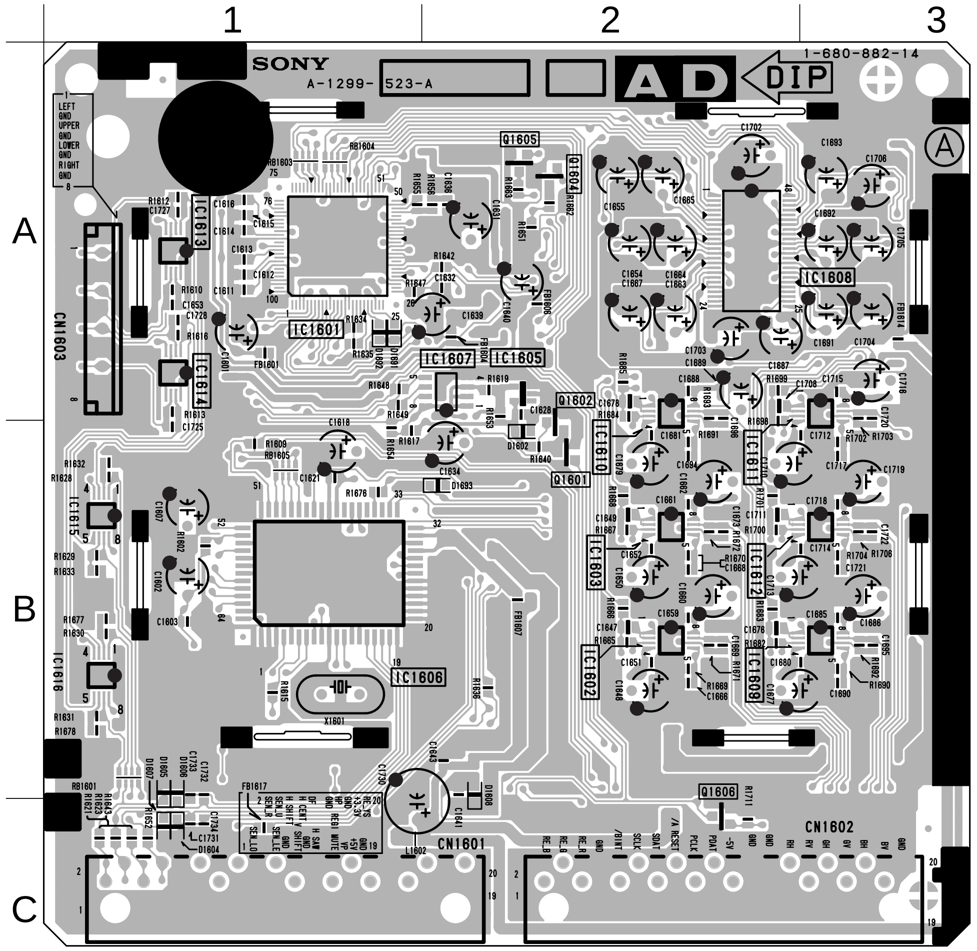
- **A BOARD SEMICONDUCTOR LOCATION (Conductor Side)**

IC		
IC3002	C-3	
IC3003	C-3	
IC3005	C-4	
IC3007	C-4	
IC3009	B-5	
IC3014	B-3	
IC3021	C-2	
TRANSISTOR		
		*
Q3038	D-4	①
Q3039	D-4	①
Q3051	B-1	①
Q3052	B-1	①
Q3053	B-2	①
Q3063	E-2	①
DIODE		
		*
D3014	E-5	③
D3015	E-5	③
D3016	E-5	③
CRYSTAL		
X3001	C-1	

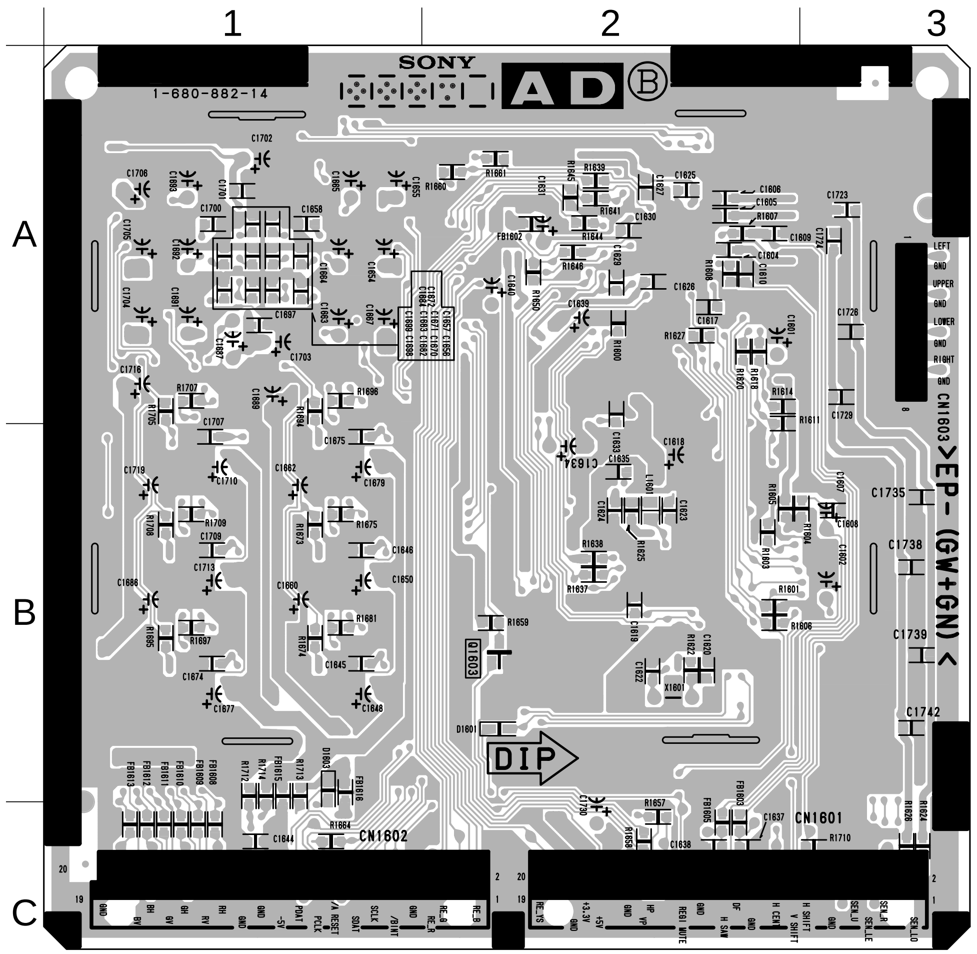
*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

AD [PJED, REGI CORRECTION]

— AD BOARD (Component Side) —


1
2
3
A
B
C
SONY
AD
DIP
1-680-882-14
CN1603
CN1601
CN1802

— AD BOARD (Conductor Side) —


1
2
3
A
B
C
SONY
AD
DIP
1-680-882-14
CN1603>EP-(GW+GN)<
CN1601
CN1602

• AD BOARD SEMICONDUCTOR LOCATION (Component Side)

IC		
IC1601	A-1	
IC1602	B-2	
IC1603	B-2	
IC1605	A-2	
IC1606	B-1	
IC1607	A-2	
IC1608	A-2	
IC1609	B-3	
IC1610	A-2	
IC1611	A-3	
IC1612	B-3	

TRANSISTOR		*
Q1604	A-2	②
Q1605	A-2	②
Q1606	C-2	②

DIODE		*
D1604	C-1	③
D1605	B-1	③
D1606	B-1	③
D1607	C-1	③

CRYSTAL	
X1601	B-1

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

• AD BOARD SEMICONDUCTOR LOCATION (Conductor Side)

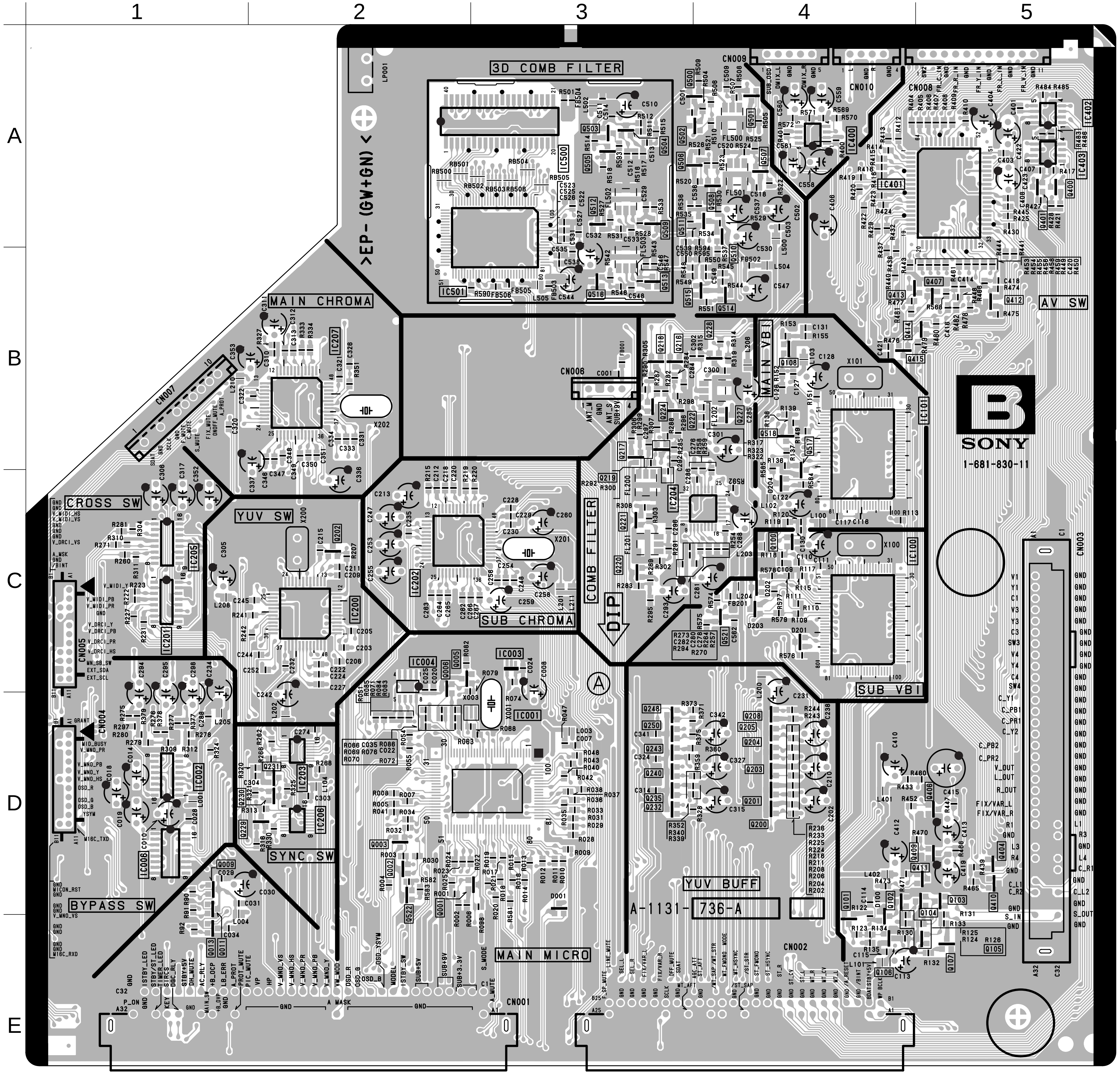
TRANSISTOR		*
Q1603	B-2	①

DIODE		*
D1601	B-2	③
D1603	B-1	③

CRYSTAL	
X1601	B-2

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

— B BOARD (Component Side) —


1
2
3
4
5
A
B
C
D
E
3D COMB FILTER
>EP- (GW+GN) <
MAIN CHROMA
CROSS SW
YUV SW
SUB CHROMA
COMB FILTER
DIP
MAIN VBI
SUB VBI
AV SW
BYPASS SW
SYNC SW
YUV BUFF
MAIN MICRO
A-1131-736-A
B
SONY
1-681-830-11
CN001
CN002
CN003
CN004
CN005
CN006
CN007
CN008
CN009
CN010
LP001

B MAIN MICON, YC JUNGLE, COMB FILTER, AV SWITCH

- **B BOARD SEMICONDUCTOR LOCATION (Component Side)**

IC		
IC001	D-3	
IC002	D-1	
IC003	C-3	
IC004	C-2	
IC006	D-1	
IC100	C-4	
IC101	B-4	
IC200	C-2	
IC201	C-1	
IC202	C-2	
IC203	D-2	
IC204	C-4	
IC205	C-1	
IC206	D-2	
IC207	B-2	
IC400	A-4	
IC401	A-5	
IC402	A-5	
IC403	A-5	
IC500	A-3	
IC501	A-3	

TRANSISTOR		*
Q001	D-3	②
Q002	D-2	②
Q003	D-2	②
Q005	C-2	②
Q006	C-2	②
Q009	D-1	②
Q011	D-1	②
Q013	E-1	②
Q100	C-4	②
Q101	E-4	②
Q102	D-4	②
Q103	D-5	②
Q104	D-5	②
Q105	E-5	②
Q106	E-4	②
Q107	E-5	②
Q108	B-4	②
Q200	D-4	②
Q201	D-4	②
Q202	C-2	②
Q203	D-4	②
Q204	D-4	②
Q205	D-4	②
Q208	D-4	②
Q216	B-3	②
Q217	B-3	②
Q218	B-3	②
Q219	B-3	②
Q220	C-3	②
Q221	C-3	②
Q222	B-3	②
Q224	B-3	②
Q227	B-4	②
Q228	B-4	②
Q229	D-2	②
Q230	D-2	②
Q231	D-2	②
Q232	D-3	②
Q235	D-3	②
Q240	D-3	②
Q243	D-3	②
Q248	D-3	②
Q250	D-3	②
Q400	A-5	②
Q401	A-5	②
Q404	D-5	②
Q406	D-5	②
Q407	B-5	②
Q409	D-5	②
Q410	D-5	②
Q411	D-5	②
Q412	B-5	②
Q413	B-4	②
Q414	B-5	②
Q415	B-4	②
Q500	A-3	②
Q501	A-4	②
Q502	A-3	②
Q503	A-3	②
Q504	A-3	②
Q505	A-3	②
Q506	A-3	②
Q507	A-4	②
Q508	A-4	②
Q509	A-3	②
Q510	A-4	②
Q511	A-4	②
Q512	A-3	②
Q513	B-3	②
Q514	B-4	②
Q515	B-4	②
Q516	B-3	②
Q517	B-4	②
Q518	B-4	②
Q521	C-4	②
Q522	D-2	②

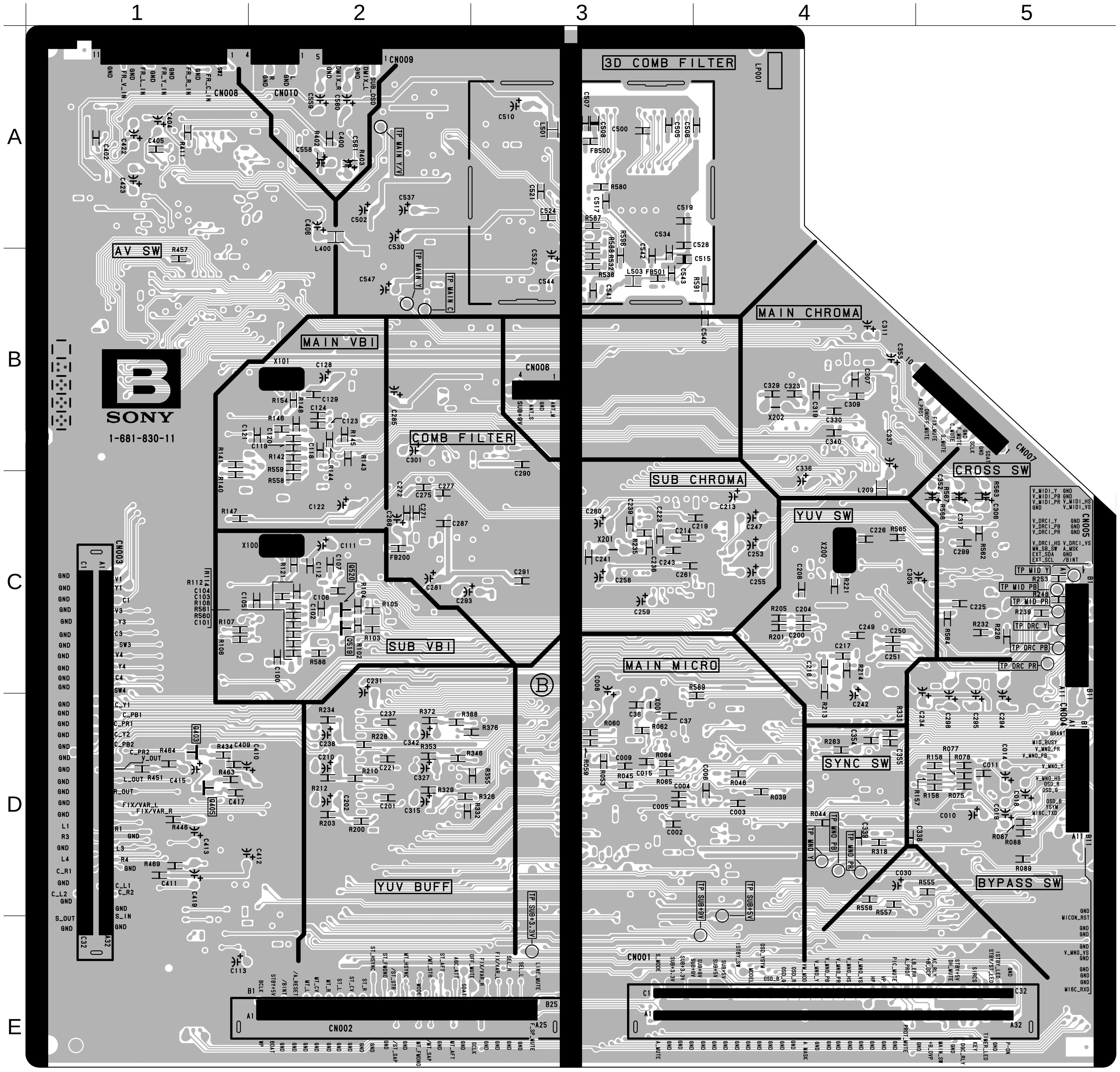
DIODE		*
D001	D-3	⑨
D100	E-4	⑨
D201	C-4	⑨
D202	C-4	⑪
D203	C-4	⑪
D204	C-4	⑨

CRYSTAL	
X001	D-3
X003	D-2
X100	C-4
X101	B-4
X200	C-2
X201	C-3
X202	B-2

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)**

— B BOARD (Conductor Side) —

B [MAIN MICON, YC JUNGLE, COMB FILTER, AV SWITCH]


1
2
3
4
5
A
B
C
D
E
3D COMB FILTER
AV SW
MAIN VBI
COMB FILTER
MAIN CHROMA
CROSS SW
SUB CHROMA
YUV SW
SUB VBI
MAIN MICRO
YUV BUFF
SYNC SW
BYPASS SW
B
SONY
1-681-830-11
CN001
CN002
CN003
CN004
CN005
CN006
CN007
CN008
CN009
CN010
TP MAIN Y/V
TP MAIN V
TP MAIN C
TP SUB+3.3V
TP SUB+9V
TP SUB+5V
TP MNO Y
TP MNO PB
TP MNO PR
TP MID Y
TP MID PB
TP MID PR
TP DRC Y
TP DRC PB
TP DRC PR

- **B BOARD SEMICONDUCTOR LOCATION (Conductor Side)**

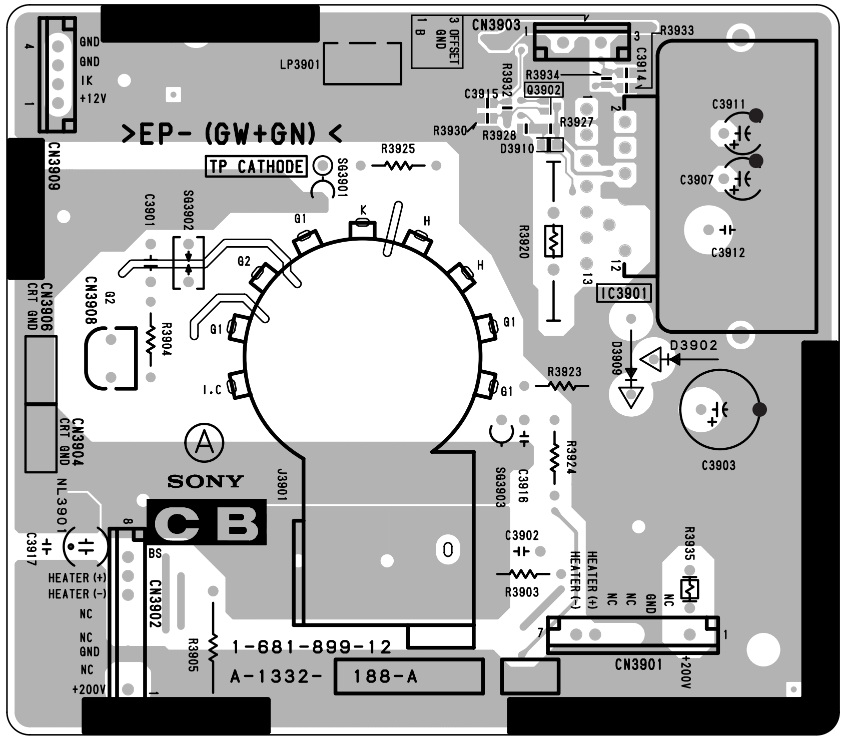
TRANSISTOR		*
Q403	D-1	①
Q405	D-1	①
Q519	C-2	①
Q520	C-2	①

CRYSTAL	
X001	D-3
X100	C-2
X101	B-2
X200	C-4
X201	C-3
X202	B-4

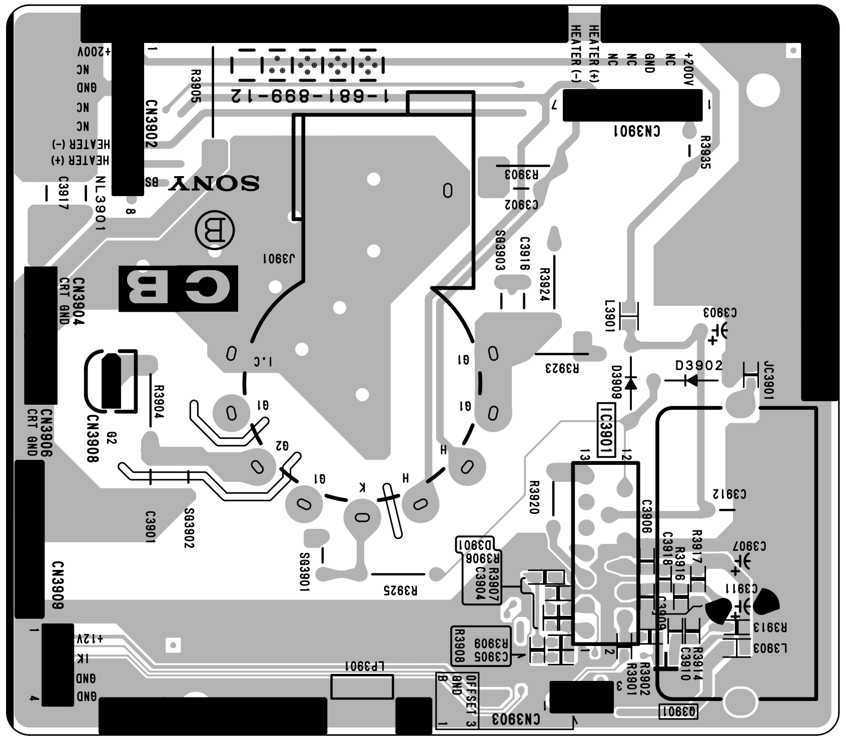
*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

CB ［B CRT DRIVE］

— CB BOARD (Component Side) —


>EP- (GW+GN) <
TP CATHODE
CN3903
CN3909
CN3906 CRT GND
CN3908
CN3904 CRT GND
CN3902
CN3901
IC3901
D3902
C3903
C3911
C3912
C3907
LP3901
SONY
CB
1-681-899-12
A-1332- 188-A
HEATER (+)
HEATER (-)
+200V
+12V
GND
IK
OFFSET

— CB BOARD (Conductor Side) —


CB
SONY
1-681-899-12
CN3901
CN3902
CN3903
CN3904 CRT GND
CN3906 CRT GND
CN3908
CN3909
IC3901
D3902
LP3901
Q3901

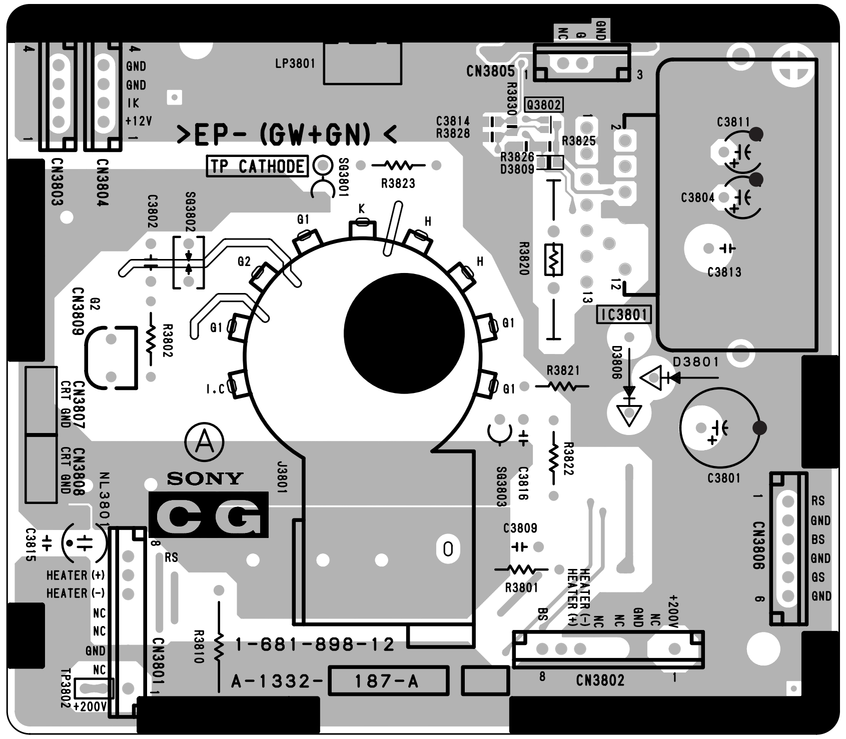
CB BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D3901, 3910	③
Q3901	①
Q3902	⑬

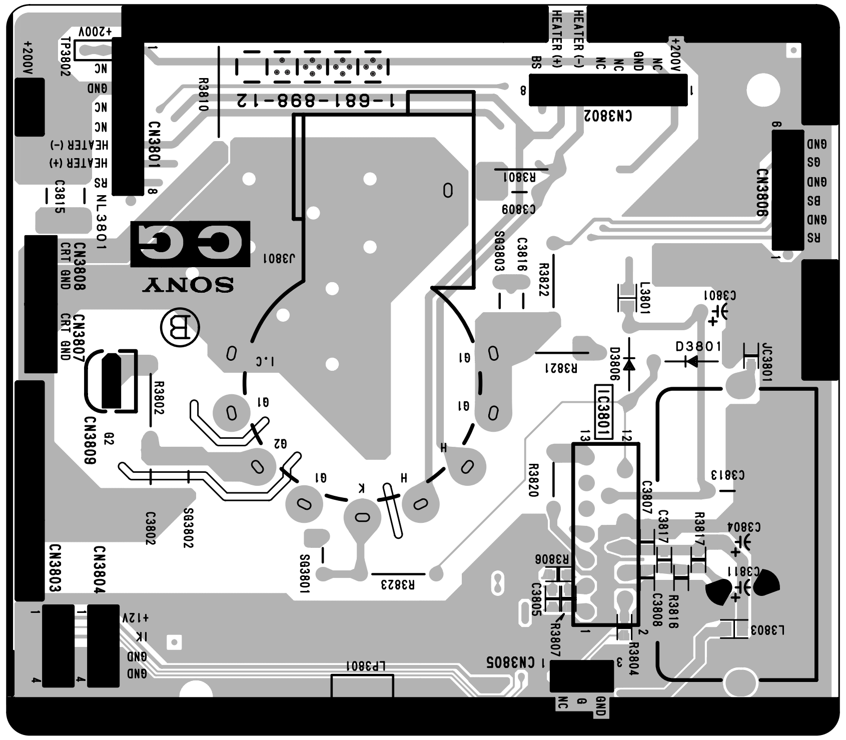
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

CG ［G CRT DRIVE］

— CG BOARD (Component Side) —


>EP- (GW+GN) <
TP CATHODE
CN3805
CN3803
CN3804
CN3809
CN3807 CRT GND
CN3808 CRT GND
CN3801
CN3802
CN3806
IC3801
D3801
C3801
C3811
C3804
C3813
LP3801
SONY
CG
1-681-898-12
A-1332- 187-A
HEATER (+)
HEATER (-)
+200V
+12V
RS
GND
BS
GS

— CG BOARD (Conductor Side) —


CG
SONY
1-681-898-12
CN3801
CN3802
CN3803
CN3804
CN3805
CN3806
CN3807 CRT GND
CN3808 CRT GND
CN3809
IC3801
D3801
LP3801

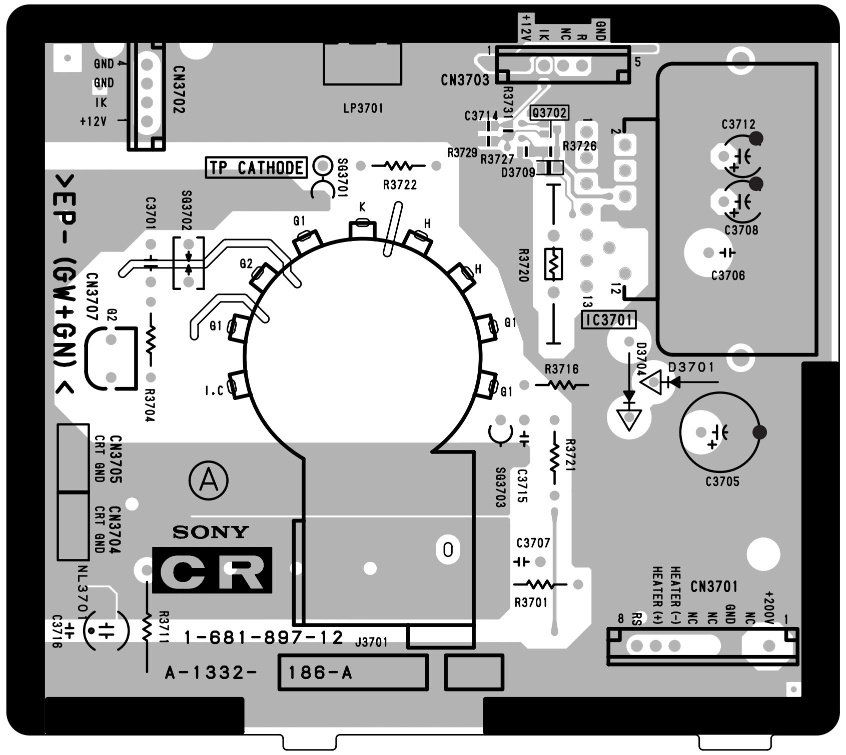
CG BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D3809	③
Q3802	⑬

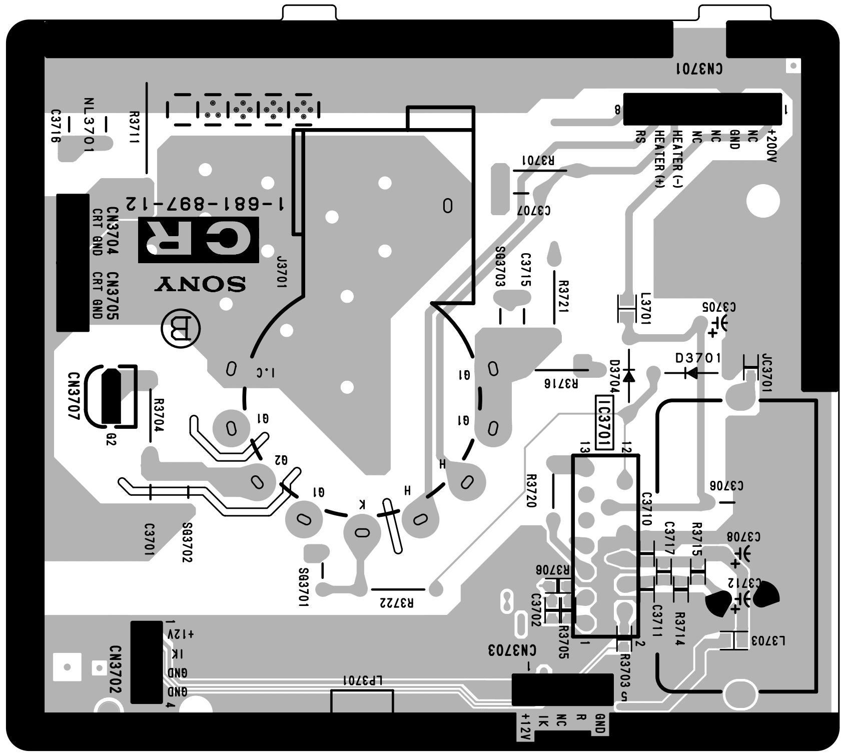
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

CR [R CRT DRIVE]

— CR BOARD (Component Side) —


CN3702
GND
GND
IK
+12V
LP3701
CN3703
+12V IK NC R GND
Q3702
TP CATHODE
SB3701
R3722
C3712
C3708
C3706
IC3701
D3701
D3704
C3705
R3716
R3721
C3715
SB3703
C3707
R3701
CN3701
HEATER (+)
HEATER (-)
NC
NC
GND
NC
+200V
>EP-(GW+GN)<
CN3707
R3704
CN3705 CRT GND
CN3704 CRT GND
NL3701
C3718
R3711
A
SONY
CR
1-681-897-12
J3701
A-1332-
186-A

— CR BOARD (Conductor Side) —


CN3701
+200V
NC
GND
NC
NC
HEATER (-)
HEATER (+)
RS
R3701
C3707
SB3703
C3715
R3721
L3701
C3705
D3701
D3704
IC3701
R3716
R3720
C3710
C3708
C3717
R3715
C3712
C3711
R3714
L3703
R3703
R3705
C3702
R3706
CN3703
CN3702
+12V
IK
GND
GND
LP3701
R3722
SB3701
SB3702
C3701
CN3707
R3704
B
SONY
CR
1-681-897-12
J3701
CN3704 CRT GND
CN3705 CRT GND
NL3701
C3718
R3711

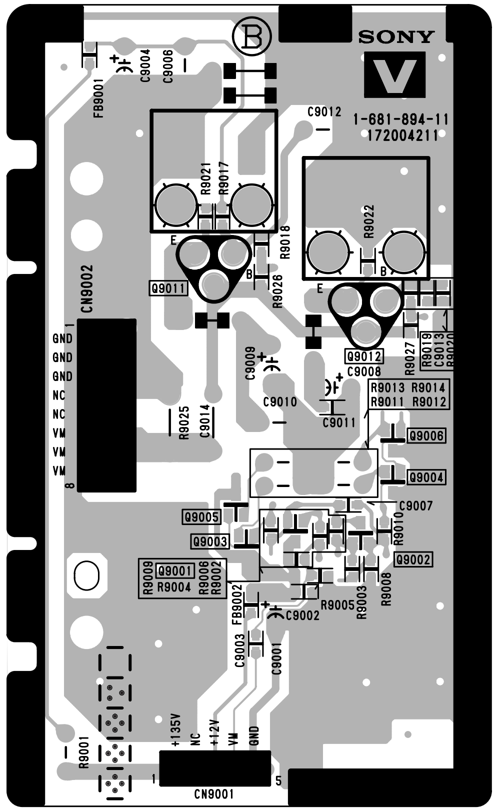
CR BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D3709	③
Q3702	⑬

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

V [VM]

— V BOARD —

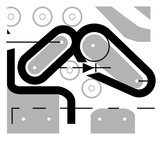

B
SONY
V
1-681-894-11
172004211
C9004
C9006
FB9001
C9012
R9021
R9017
R9022
R9018
Q9011
R9026
CN9002
GND
GND
GND
NC
NC
VM
VM
VM
C9009
Q9012
C9008
R9027
R9013 R9014
R9011 R9012
C9010
C9011
R9025
C9014
Q9006
Q9004
Q9005
Q9003
C9007
Q9002
Q9001
R9004
R9008
R9002
R9005
R9003
FB9002
C9002
C9003
C9001
R9001
+135V
NC
+12V
VM
GND
CN9001

V BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
Q9001 – 9006	①

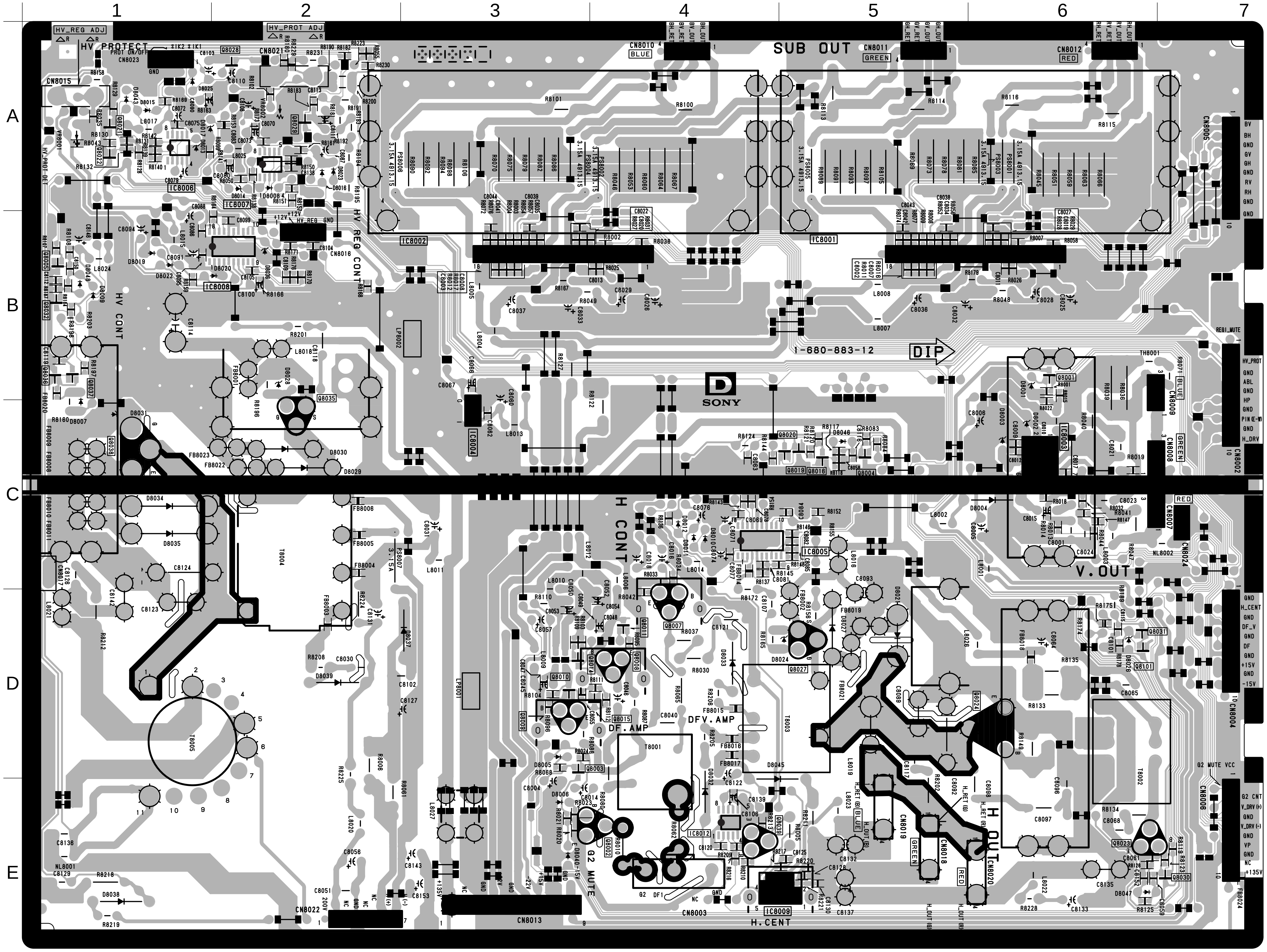
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

D [DEF, HV REG, D.F., CONVERGENCE OUT]



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

— D BOARD —


1
2
3
4
5
6
7
A
B
C
D
E
HV_REG ADJ
HV_PROT ADJ
HV PROTECT
SUB OUT
CN8010 BLUE
CN8011 GREEN
CN8012 RED
HV REG CONT
HV CONT
IC8001
IC8002
IC8003
IC8004
IC8005
IC8006
IC8007
IC8008
IC8009
IC8012
1-680-883-12
DIP
SONY
H CONT
V.OUT
DF.AMP
DFV.AMP
G2 MUTE
H.CENT
H OUT
T8001
T8002
T8003
T8004
T8005
CN8013
CN8022
CN8003
CN8005
CN8002
CN8004
CN8006
CN8007
CN8008
CN8009
CN8018
CN8019
CN8020
CN8023
CN8015
CN8016
CN8017
CN8021
CN8024

• **D BOARD SEMICONDUCTOR LOCATION**

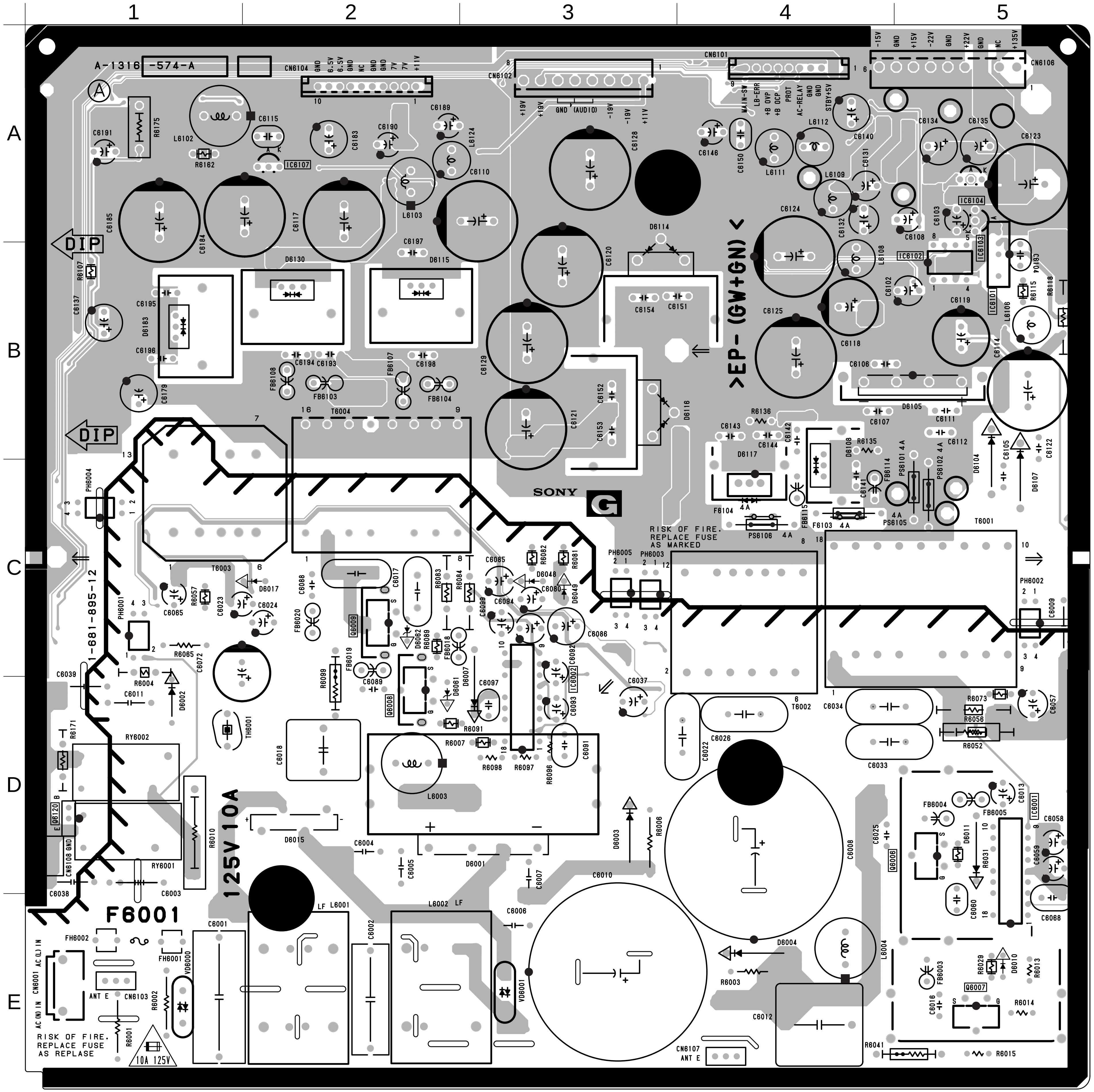
IC	
IC8001	B-5
IC8002	B-3
IC8003	C-6
IC8004	C-3
IC8005	C-4
IC8006	A-1
IC8007	A-2
IC8008	B-2
IC8009	E-4
IC8012	E-4

TRANSISTOR		✱
Q8001	B-6	①
Q8002	E-4	–
Q8003	D-3	①
Q8004	C-5	①
Q8005	B-1	①
Q8007	D-4	–
Q8008	D-4	–
Q8009	D-3	–
Q8010	D-3	①
Q8011	D-4	①
Q8014	D-3	①
Q8015	D-4	①
Q8016	C-5	①
Q8019	C-5	①
Q8020	C-5	①
Q8021	A-1	①
Q8022	A-1	①
Q8023	E-6	–
Q8024	D-6	–
Q8027	D-5	–
Q8028	A-2	①
Q8029	A-2	①
Q8030	E-7	①
Q8031	D-6	①
Q8032	B-1	①
Q8035	C-2	–
Q8036	B-1	①
Q8037	B-1	①
Q8038	C-1	–
Q8039	E-4	–
Q8101	D-6	①

DIODE		✱
D8001	B-6	–
D8002	C-6	–
D8003	C-6	–
D8004	C-6	–
D8005	D-3	–
D8006	E-3	–
D8007	C-1	–
D8008	A-2	–
D8010	C-4	–
D8011	C-4	–
D8012	C-4	–
D8013	A-1	–
D8014	A-2	–
D8015	A-1	–
D8016	A-2	–
D8019	B-1	–
D8020	B-2	–
D8021	D-5	–
D8022	B-1	–
D8023	A-2	–
D8024	D-5	–
D8025	A-1	–
D8026	D-6	–
D8027	D-5	–
D8028	B-2	–
D8029	C-2	–
D8030	C-2	–
D8031	C-1	–
D8032	E-4	–
D8033	D-4	–
D8034	C-1	–
D8035	C-1	–
D8036	B-2	–
D8037	D-3	–
D8038	E-1	–
D8039	D-2	–
D8040	E-3	–
D8043	A-1	–
D8045	E-4	–
D8046	C-5	–
D8047	E-6	–
D8048	B-1	–

✱: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

— G BOARD (Component Side) —


1
2
3
4
5
A
B
C
D
E
A-1316-574-A
DIP
DIP
EP- (GW+GN)
SONY
G
1-681-895-12
125V 10A
F6001
RISK OF FIRE. REPLACE FUSE AS MARKED
RISK OF FIRE. REPLACE FUSE AS REPLASE
10A 125V
CN6101
CN6102
CN6104
CN6106
CN6001
CN6103
CN6107
CN6108
T6001
T6002
T6003
T6004
RY6001
RY6002
PH6001
PH6002
PH6003
PH6004
PH6005
IC6001
IC6002
IC6101
IC6102
IC6103
IC6104
IC6107
Q6006
Q6007
Q6008
Q6009
Q6120
L6001
L6002
L6003
L6004
F6103 4A
F6104 4A
PS6101 4A
PS6102 4A
PS6105
PS6106
D6001
D6004
D6114
D6115
D6116
D6117
D6130
D6183
C6008
C6010
C6012
AC (L) IN
AC (N) IN
ANT E
-15V GND +15V -22V GND +22V GND NC +135V
+19V +19V GND (AUDIO) -19V -18V +11V
MAIN-SW LB-ERR +B OVP +B OCP PROT AC-RELAY GND GND STBY+5V
GND 6.5V 6.5V GND NC GND GND 7V 7V +11V

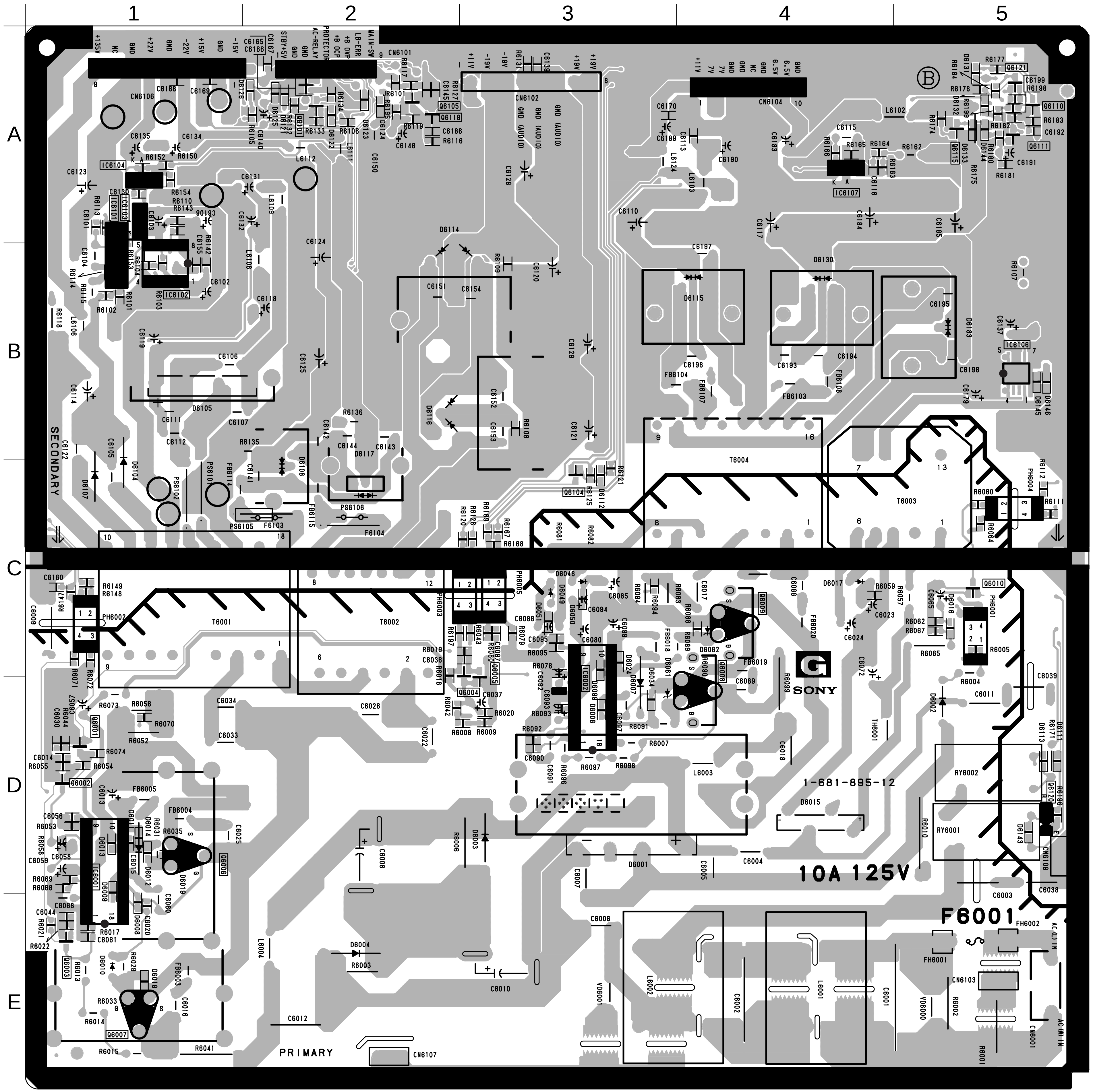
G [POWER SUPPLY]

- **G BOARD SEMICONDUCTOR LOCATION (Component Side)**

IC	
IC6001	D-5
IC6002	D-3
IC6101	B-5
IC6102	B-5
IC6103	A-5
IC6104	A-5
IC6107	A-2

TRANSISTOR	
Q6006	D-5
Q6007	E-5
Q6008	D-2
Q6009	C-2
Q6120	D-1

DIODE	
D6001	D-3
D6002	D-1
D6003	D-3
D6004	E-4
D6007	D-3
D6011	D-5
D6015	D-2
D6017	C-2
D6048	C-3
D6049	C-3
D6061	D-2
D6062	C-2
D6104	C-5
D6105	B-5
D6107	C-5
D6108	C-4
D6114	B-3
D6115	B-2
D6116	B-3
D6117	C-4
D6130	B-2
D6183	B-1


1
2
3
4
5
A
B
C
D
E
SECONDARY
PRIMARY
CN6101
CN6102
CN6104
CN6106
CN6107
T6001
T6002
T6003
T6004
1-681-895-12
SONY
10A 125V
F6001
RY6001
RY6002
AC IN

G ［POWER SUPPLY］

- **G BOARD SEMICONDUCTOR LOCATION (Conductor Side)**

IC	
IC6001	D-1
IC6002	D-3
IC6101	B-1
IC6102	B-1
IC6103	A-1
IC6104	A-1
IC6106	B-5
IC6107	A-4

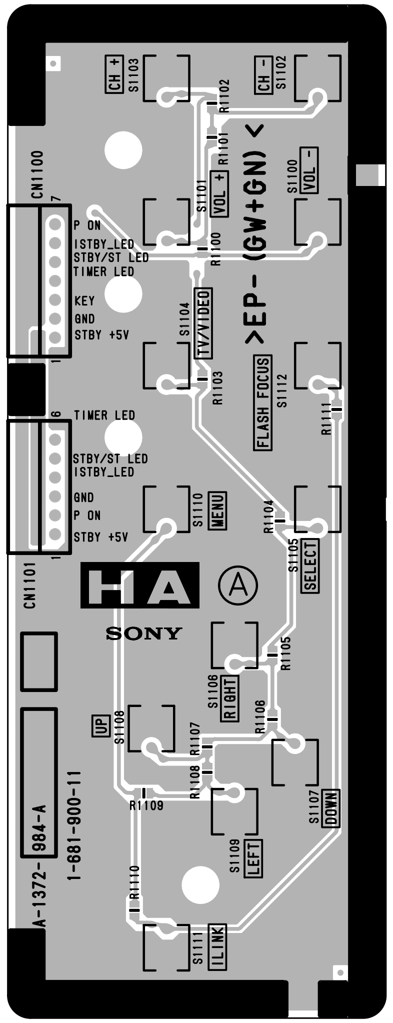
TRANSISTOR		*
Q6001	D-1	①
Q6003	E-1	①
Q6004	C-3	①
Q6005	D-3	①
Q6006	D-1	–
Q6007	E-1	–
Q6008	D-4	–
Q6009	C-4	–
Q6010	C-5	①
Q6101	A-2	①
Q6104	C-3	①
Q6105	A-2	①
Q6110	A-5	①
Q6111	A-5	①
Q6115	A-5	①
Q6119	A-2	①
Q6120	D-5	–
Q6121	A-5	①

DIODE		*
D6001	D-3	–
D6002	D-5	–
D6003	D-3	–
D6004	E-2	–
D6007	D-3	–
D6011	D-1	–
D6015	D-4	–
D6016	C-5	③
D6017	C-4	–
D6048	C-3	–
D6049	C-3	–
D6050	C-3	③
D6051	C-3	③
D6061	D-3	–
D6062	C-4	–
D6104	C-1	–
D6105	B-1	–
D6107	C-1	–
D6108	C-2	–
D6111	D-5	③
D6112	C-3	③
D6113	D-5	③
D6114	B-2	–
D6115	B-4	–
D6116	B-2	–
D6117	C-2	–
D6121	A-2	③
D6122	A-2	③
D6123	A-2	③
D6124	A-2	③
D6125	A-2	③
D6126	A-2	③
D6130	B-4	–
D6131	A-5	③
D6132	A-5	③
D6133	A-5	③
D6143	D-5	③
D6144	A-5	③
D6183	B-5	–

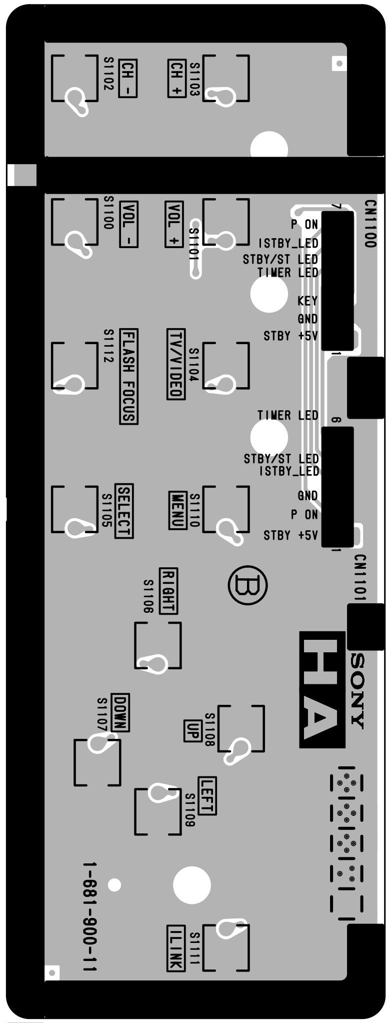
***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)**

HA [USER CONTROL]

— HA BOARD (Component Side) —

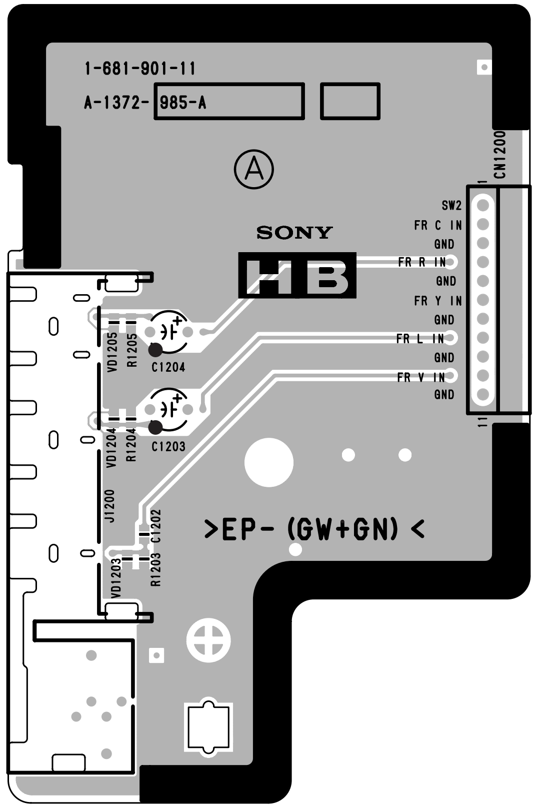

CN1100
P ON
ISTBY_LED
STBY/ST LED
TIMER LED
KEY
GND
STBY +5V
CN1101
HA
Ⓐ
SONY
>EP- (GW+GN) <
CH +
CH -
VOL +
VOL -
TV/VIDEO
FLASH FOCUS
MENU
SELECT
RIGHT
UP
DOWN
LEFT
ILINK
A-1372-984-A
1-681-900-11

— HA BOARD (Conductor Side) —

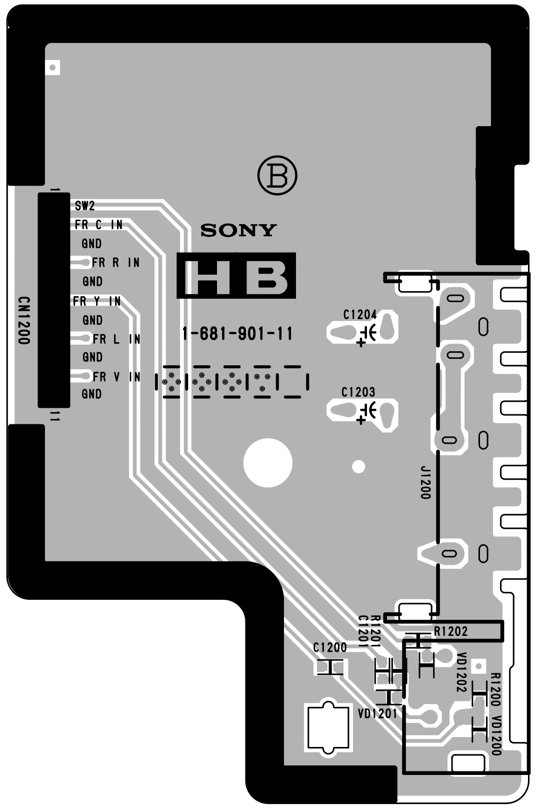

CN1100
P ON
ISTBY_LED
STBY/ST LED
TIMER LED
KEY
GND
STBY +5V
CN1101
HA
SONY
Ⓑ
1-681-900-11

HB [AV2 INPUT]

— HB BOARD (Component Side) —

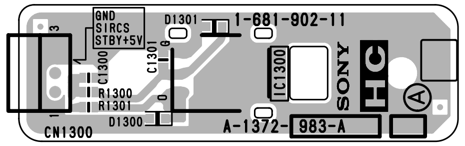

1-681-901-11
A-1372-985-A
Ⓐ
SONY
HB
CN1200
SW2
FR C IN
GND
FR R IN
FR Y IN
FR L IN
FR V IN
J1200
C1204
C1203
>EP- (GW+GN) <

— HB BOARD (Conductor Side) —

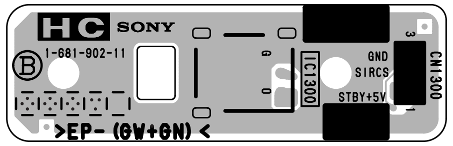

Ⓑ
SONY
HB
CN1200
1-681-901-11
J1200
C1204
C1203
R1202
VD1201

HC [IR DETECTOR]

— HC BOARD (Component Side) —


GND
SIRCS
STBY+5V
D1301
1-681-902-11
IC1300
SONY
HC
Ⓐ
CN1300
D1300
A-1372-983-A

— HC BOARD (Conductor Side) —


HC
SONY
1-681-902-11
Ⓑ
IC1300
GND
SIRCS
STBY+5V
CN1300
>EP- (GW+GN) <

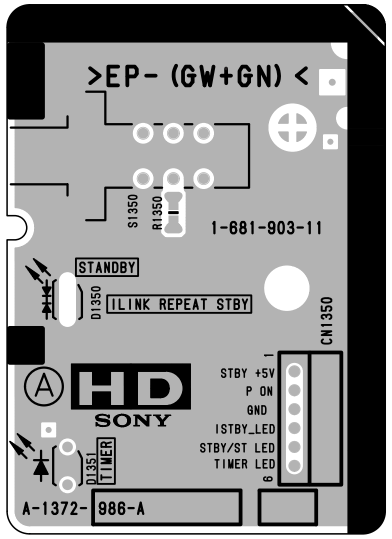
HC BOARD
Terminal name of semiconductors in silk screen printed circuit (∗)

Ref.	∗
D1300, 1301	③

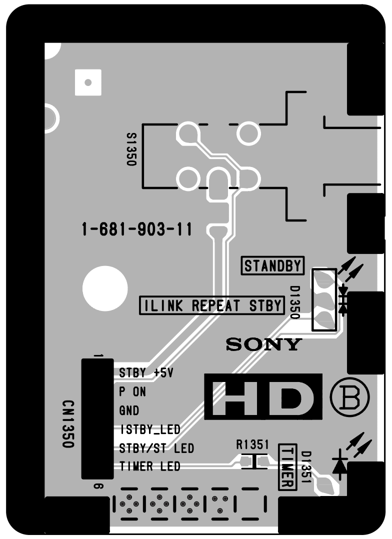
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

HD [POWER SW, LED]

— HD BOARD (Component Side) —

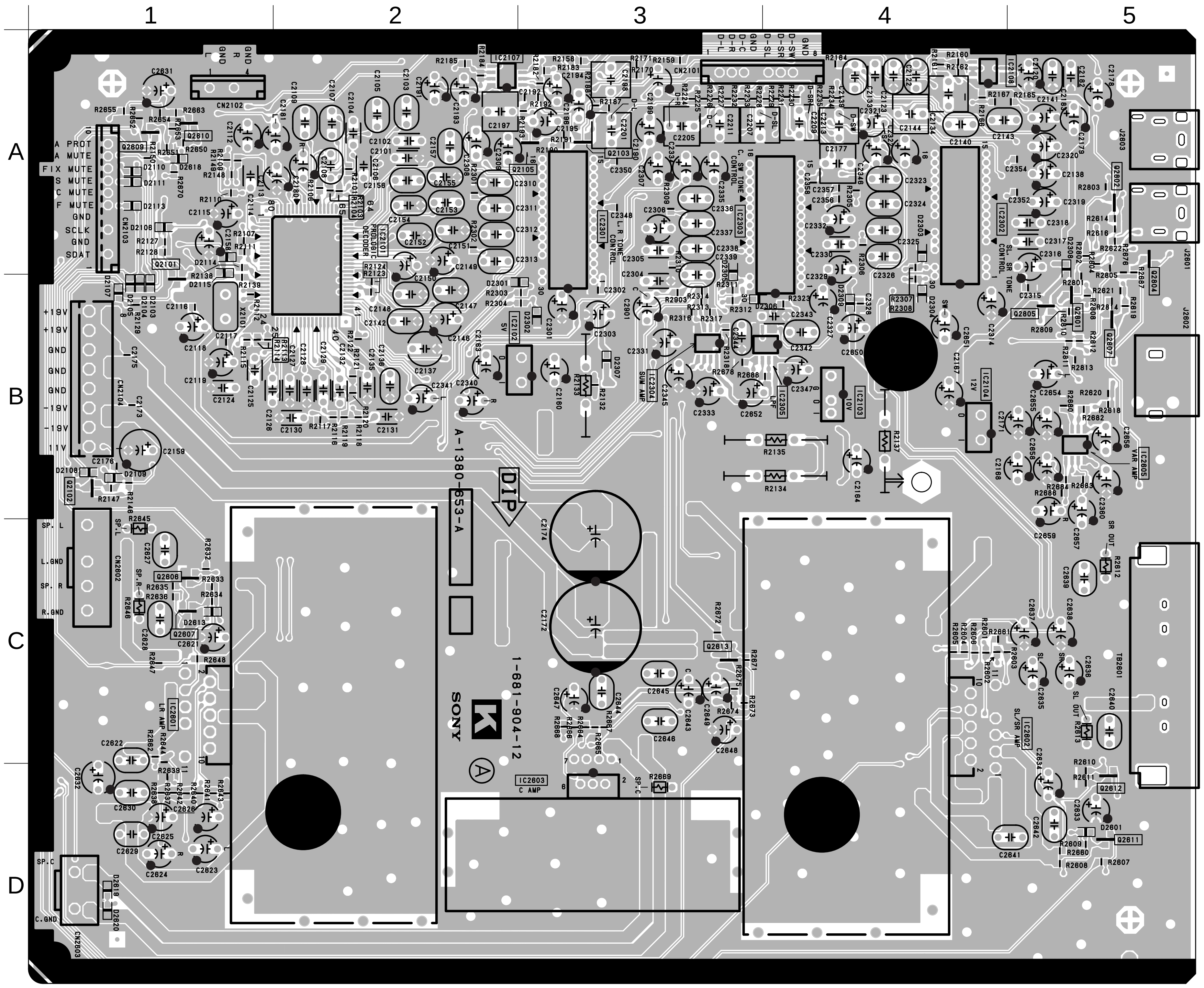

>EP- (GW+GN) <
1-681-903-11
STANDBY
ILINK REPEAT STBY
CN1350
Ⓐ
HD
SONY
STBY +5V
P ON
GND
ISTBY_LED
STBY/ST LED
TIMER LED
TIMER
A-1372-986-A

— HD BOARD (Conductor Side) —


1-681-903-11
STANDBY
ILINK REPEAT STBY
SONY
CN1350
STBY +5V
P ON
GND
ISTBY_LED
STBY/ST LED
TIMER LED
HD
Ⓑ
TIMER

K [PROLOGIC DECODER, TONE CONTROL]

— K BOARD (Component Side) —


1
2
3
4
5
A
B
C
D
A-1380-653-A
1-681-904-12
SONY
K
DIP
IC2101 PROLOGIC DECODER
IC2301 L R TONE CONTROL
IC2302 SL SR TONE CONTROL
IC2303 C SW TONE CONTROL
IC2304 SUB AMP
IC2305 LFE
IC2601 LR AMP
IC2602 SL/SR AMP
IC2603 C AMP
IC2605 VAR AMP
X2101
CN2101
CN2102
CN2103
CN2104
CN2602
CN2603
J2801
J2802
J2803
J2804
TB2601
A PROT
A MUTE
FIX MUTE
S MUTE
C MUTE
F MUTE
GND
SCLK
GND
SDAT
+19V
+19V
GND
GND
GND
-19V
-19V
11V
SP.L
L.GND
SP.R
R.GND
SP.C
C.GND
SR OUT
SL OUT
GND
R
L
GND
D-L
D-R
D-C
D-SL
D-SR
D-SW
GND

• K BOARD SEMICONDUCTOR LOCATION (Component Side)

IC	
IC2101	A-2
IC2102	B-3
IC2103	B-4
IC2104	B-4
IC2107	A-2
IC2108	A-4
IC2301	A-3
IC2302	A-4
IC2303	A-4
IC2304	B-3
IC2305	B-4
IC2601	C-1
IC2602	C-4
IC2603	D-3
IC2605	B-5

TRANSISTOR		∗
Q2101	B-1	②
Q2102	B-1	②
Q2103	A-3	②
Q2105	A-3	②
Q2606	C-1	②
Q2607	C-1	②
Q2609	A-1	②
Q2610	A-1	②
Q2611	D-5	②
Q2612	D-5	②
Q2613	C-3	②
Q2801	B-5	②
Q2802	A-5	②
Q2804	A-5	②
Q2805	B-5	②
Q2807	B-5	②

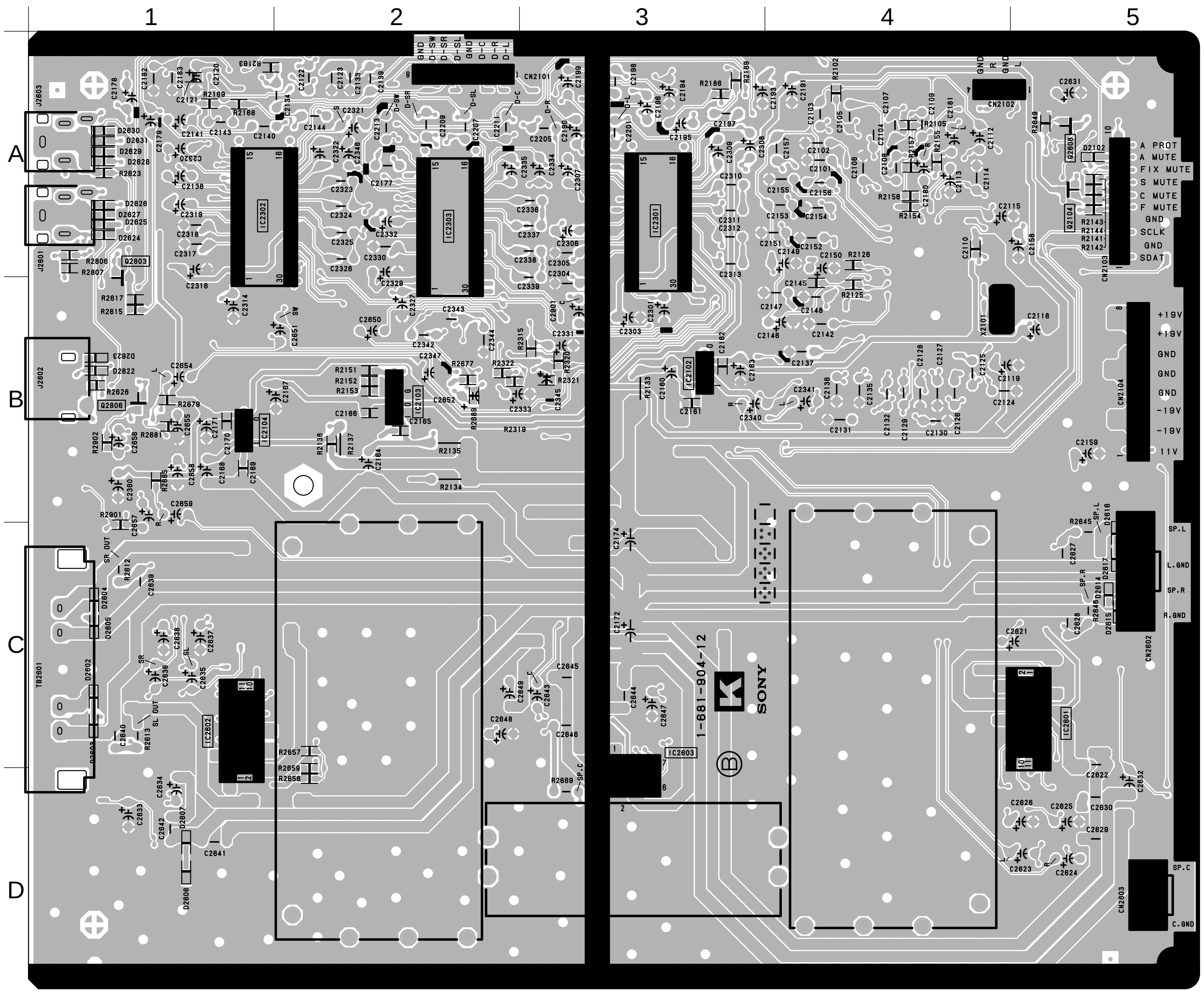
DIODE		∗
D2103	B-1	③
D2104	B-1	③
D2105	B-1	③
D2106	A-1	③
D2107	B-1	③
D2108	B-1	③
D2109	B-1	③
D2110	A-1	③
D2111	A-1	③
D2113	A-1	③
D2307	B-3	③
D2308	A-5	③
D2309	B-4	③
D2601	D-5	③
D2613	C-1	③
D2618	A-1	③
D2619	D-1	③
D2620	D-1	③

CRYSTAL	
X2101	B-1

∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

K [PROLOGIC DECODER, TONE CONTROL]

— K BOARD (Conductor Side) —


1
2
3
4
5
A
B
C
D
IC2102
IC2103
IC2104
IC2301
IC2302
IC2303
IC2601
IC2602
IC2603
CN2101
CN2102
CN2103
CN2104
CN2802
CN2803
J2601
J2602
J2603
TB2601
A PROT
A MUTE
FIX MUTE
S MUTE
C MUTE
F MUTE
GND
SCLK
GND
SDAT
+19V
+19V
GND
GND
GND
-19V
-19V
11V
SP.L
L.GND
SP.R
R.GND
SP.C
C.GND
1-681-904-12
SONY

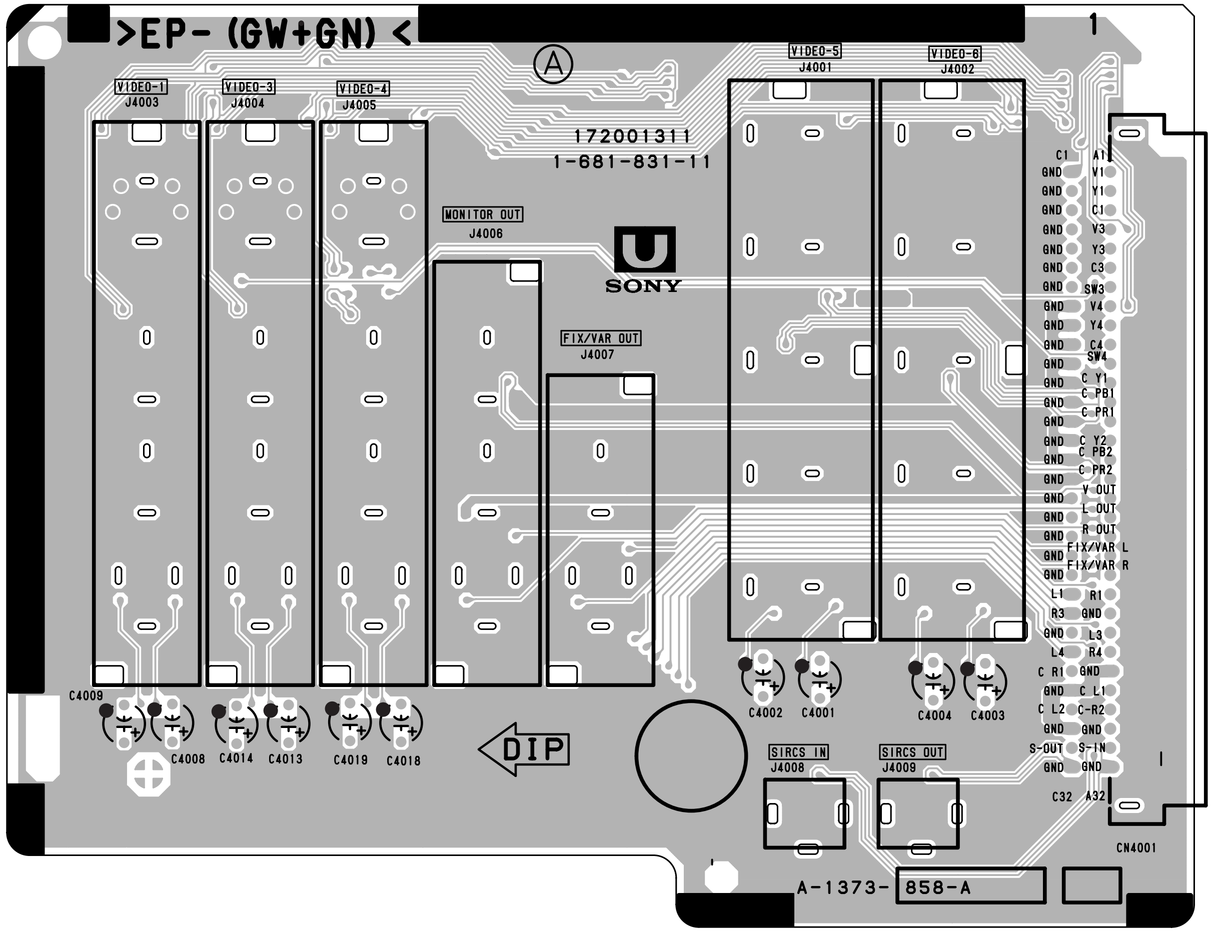
• K BOARD SEMICONDUCTOR LOCATION (Conductor Side)

IC		
IC2102	B-3	
IC2103	B-2	
IC2104	B-1	
IC2301	A-3	
IC2302	A-1	
IC2303	A-2	
IC2601	C-5	
IC2602	C-1	
IC2603	D-3	
TRANSISTOR		
		∗
Q2104	A-5	①
Q2608	A-5	①
Q2803	A-1	①
Q2806	B-1	①
DIODE		
		∗
D2102	A-5	③
D2602	C-1	③
D2603	C-1	③
D2604	C-1	③
D2605	C-1	③
D2606	D-1	③
D2607	D-1	③
D2614	C-5	③
D2615	C-5	③
D2616	C-5	③
D2617	C-5	③
D2622	B-1	③
D2623	B-1	③
D2624	A-1	③
D2625	A-1	③
D2626	A-1	③
D2627	A-1	③
D2628	A-1	③
D2629	A-1	③
D2630	A-1	③
D2631	A-1	③
CRYSTAL		
X2101	B-4	

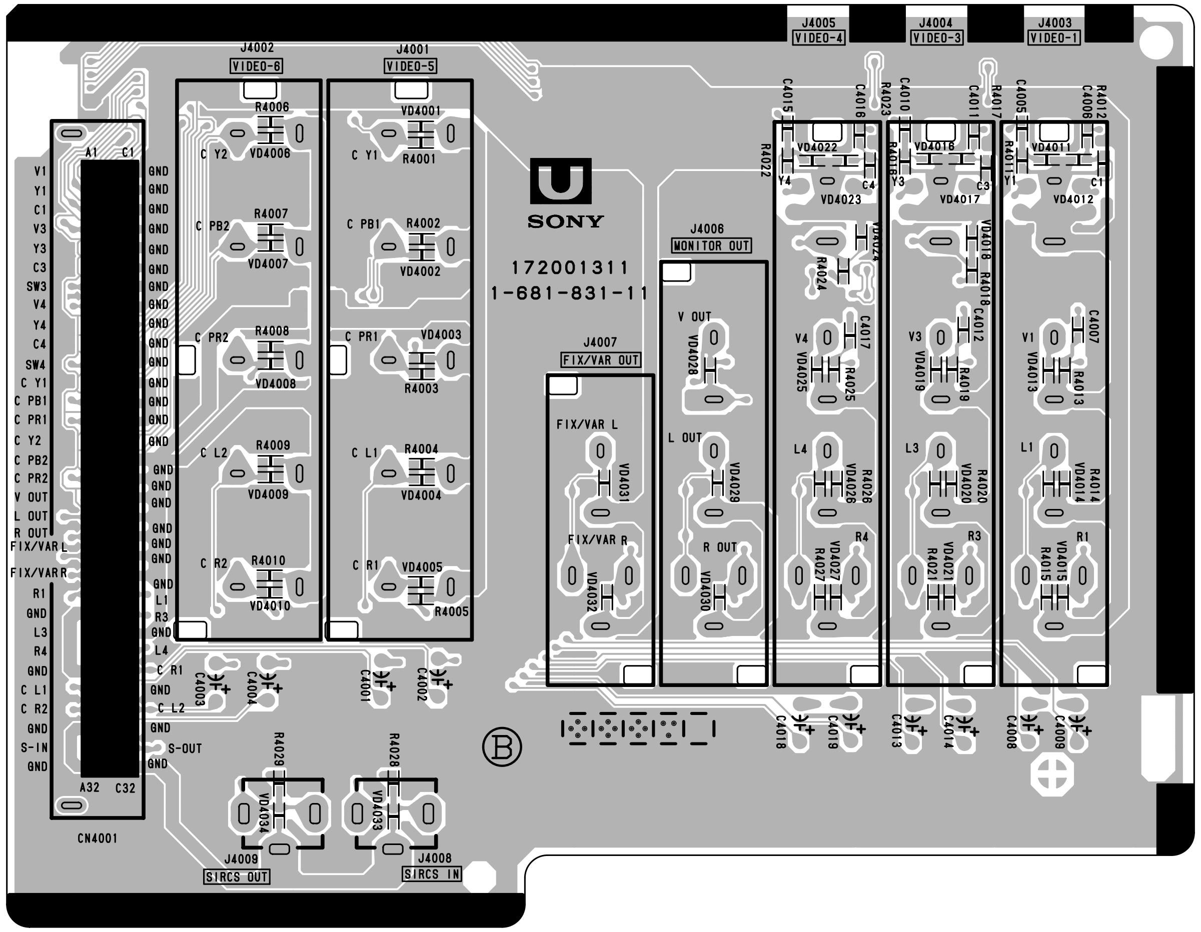
∗: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 64)

U [AV INPUT/OUTPUT]

— U BOARD (Component Side) —

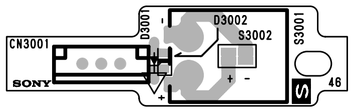

>EP- (GW+GN) <
Ⓐ
VIDEO-1
J4003
VIDEO-3
J4004
VIDEO-4
J4005
VIDEO-5
J4001
VIDEO-6
J4002
172001311
1-681-831-11
SONY
MONITOR OUT
J4006
FIX/VAR OUT
J4007
C4009
C4008
C4014
C4013
C4019
C4018
C4002
C4001
C4004
C4003
DIP
SIRCS IN
J4008
SIRCS OUT
J4009
CN4001
A-1373-858-A

— U BOARD (Conductor Side) —

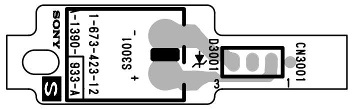

J4005
VIDEO-4
J4004
VIDEO-3
J4003
VIDEO-1
J4002
VIDEO-6
J4001
VIDEO-5
CN4001
SONY
172001311
1-681-831-11
J4006
MONITOR OUT
J4007
FIX/VAR OUT
Ⓑ
J4009
SIRCS OUT
J4008
SIRCS IN

S [SENSOR]

— S BOARD (Component Side) —

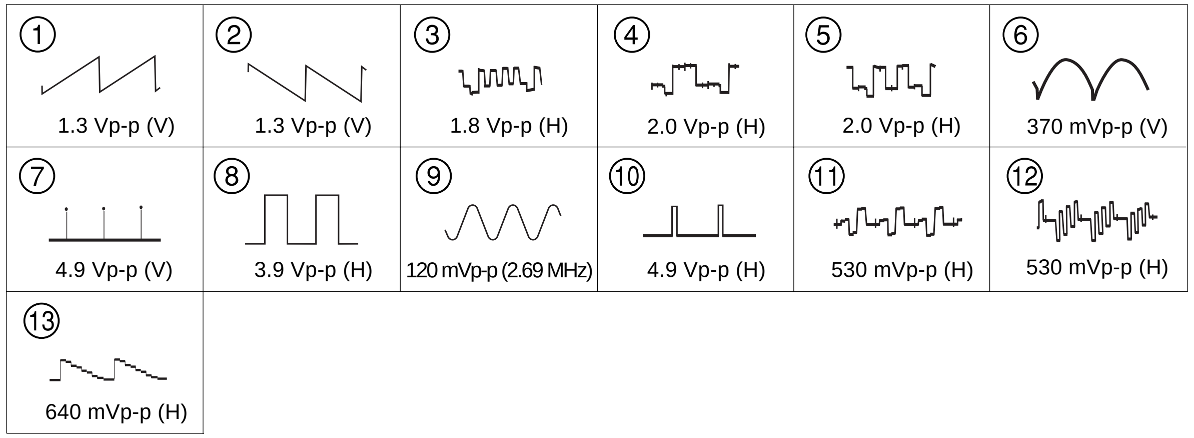

CN3001
D3001
D3002
S3002
S3001
SONY

— S BOARD (Conductor Side) —

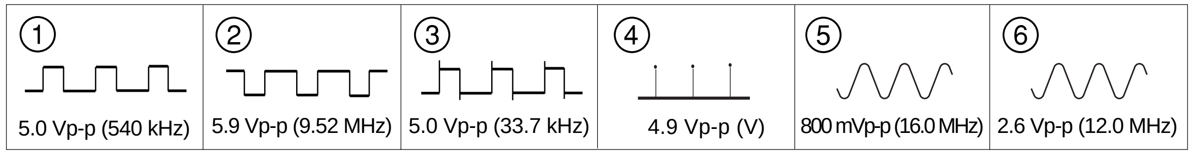

SONY
1-673-423-12
1-1390-933-A
S3001
D3001
CN3001
S

7-5. WAVEFORMS

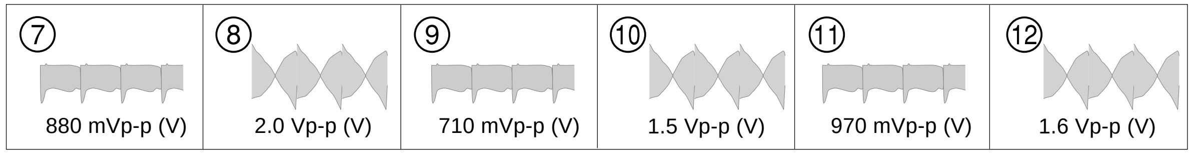
- **A (1/3) BOARD WAVEFORMS**


① 1.3 Vp-p (V)
② 1.3 Vp-p (V)
③ 1.8 Vp-p (H)
④ 2.0 Vp-p (H)
⑤ 2.0 Vp-p (H)
⑥ 370 mVp-p (V)
⑦ 4.9 Vp-p (V)
⑧ 3.9 Vp-p (H)
⑨ 120 mVp-p (2.69 MHz)
⑩ 4.9 Vp-p (H)
⑪ 530 mVp-p (H)
⑫ 530 mVp-p (H)
⑬ 640 mVp-p (H)

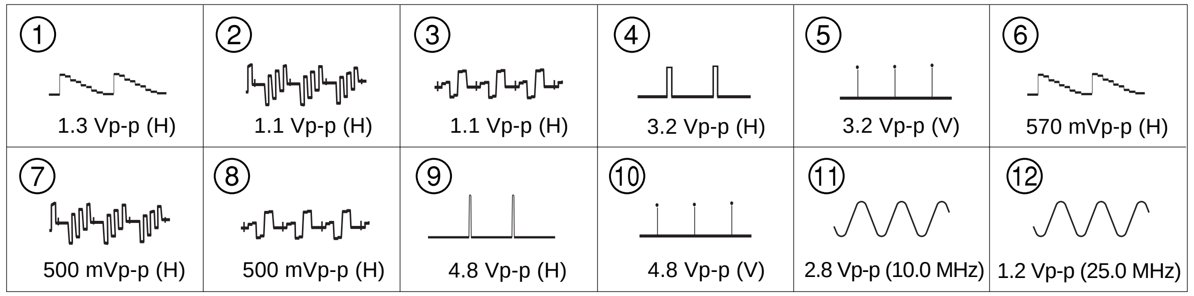
- **AD (1/2) BOARD WAVEFORMS**


① 5.0 Vp-p (540 kHz)
② 5.9 Vp-p (9.52 MHz)
③ 5.0 Vp-p (33.7 kHz)
④ 4.9 Vp-p (V)
⑤ 800 mVp-p (16.0 MHz)
⑥ 2.6 Vp-p (12.0 MHz)

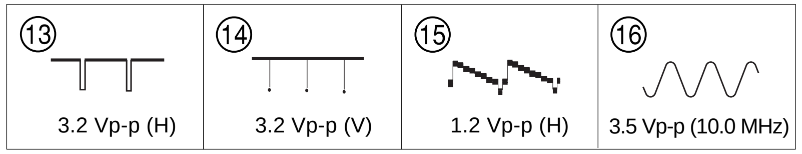
- **AD (2/2) BOARD WAVEFORMS**


⑦ 880 mVp-p (V)
⑧ 2.0 Vp-p (V)
⑨ 710 mVp-p (V)
⑩ 1.5 Vp-p (V)
⑪ 970 mVp-p (V)
⑫ 1.6 Vp-p (V)

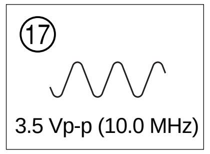
- **B (1/7) BOARD WAVEFORMS**


① 1.3 Vp-p (H)
② 1.1 Vp-p (H)
③ 1.1 Vp-p (H)
④ 3.2 Vp-p (H)
⑤ 3.2 Vp-p (V)
⑥ 570 mVp-p (H)
⑦ 500 mVp-p (H)
⑧ 500 mVp-p (H)
⑨ 4.8 Vp-p (H)
⑩ 4.8 Vp-p (V)
⑪ 2.8 Vp-p (10.0 MHz)
⑫ 1.2 Vp-p (25.0 MHz)

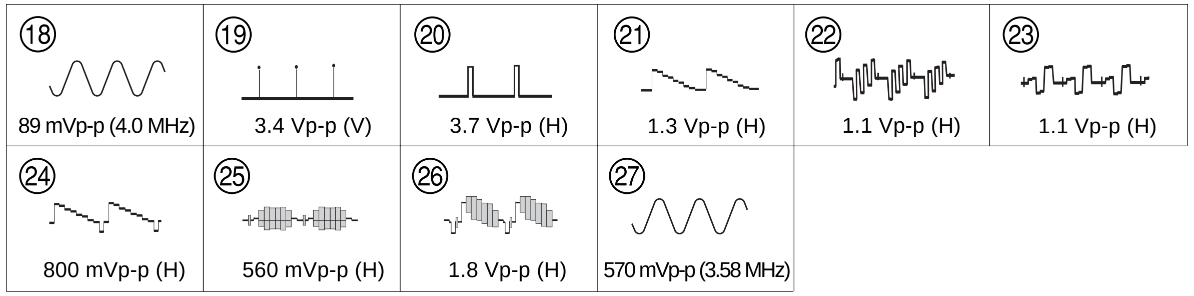
- **B (2/7) BOARD WAVEFORMS**


⑬ 3.2 Vp-p (H)
⑭ 3.2 Vp-p (V)
⑮ 1.2 Vp-p (H)
⑯ 3.5 Vp-p (10.0 MHz)

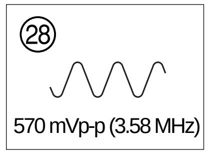
- **B (3/7) BOARD WAVEFORM**


⑰ 3.5 Vp-p (10.0 MHz)

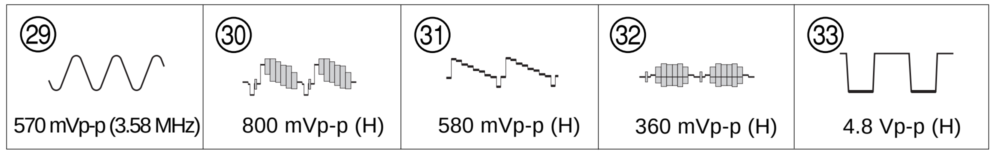
- **B (4/7) BOARD WAVEFORMS**


⑱ 89 mVp-p (4.0 MHz)
⑲ 3.4 Vp-p (V)
⑳ 3.7 Vp-p (H)
㉑ 1.3 Vp-p (H)
㉒ 1.1 Vp-p (H)
㉓ 1.1 Vp-p (H)
㉔ 800 mVp-p (H)
㉕ 560 mVp-p (H)
㉖ 1.8 Vp-p (H)
㉗ 570 mVp-p (3.58 MHz)

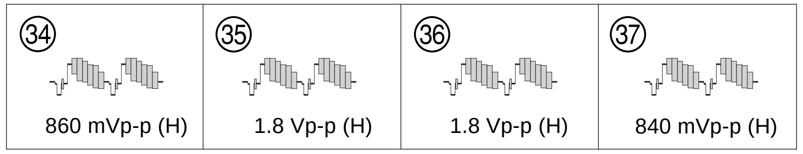
- **B (5/7) BOARD WAVEFORM**


㉘ 570 mVp-p (3.58 MHz)

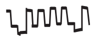
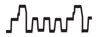
- **B (6/7) BOARD WAVEFORMS**


㉙ 570 mVp-p (3.58 MHz)
㉚ 800 mVp-p (H)
㉛ 580 mVp-p (H)
㉜ 360 mVp-p (H)
㉝ 4.8 Vp-p (H)

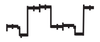
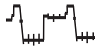
- **B (7/7) BOARD WAVEFORMS**


㉞ 860 mVp-p (H)
㉟ 1.8 Vp-p (H)
(36) 1.8 Vp-p (H)
(37) 840 mVp-p (H)

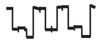
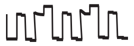
• CB BOARD WAVEFORMS

①  1.9 Vp-p (H)	②  94.0 Vp-p (H)

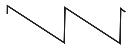
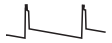
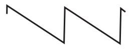
• CG BOARD WAVEFORMS

①  2.0 Vp-p (H)	②  101.5 Vp-p (H)

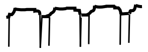
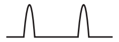
• CR BOARD WAVEFORMS

①  2.0 Vp-p (H)	②  84.5 Vp-p (H)

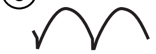
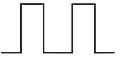
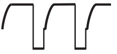
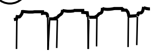
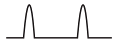
• D (1/3) BOARD WAVEFORMS

①  500 mVp-p (V)	②  53.2 Vp-p (V)	③  500 mVp-p (V)

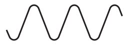
• D (2/3) BOARD WAVEFORMS

④  14.7 Vp-p (H)	⑤  940 Vp-p (H)

• D (3/3) BOARD WAVEFORMS

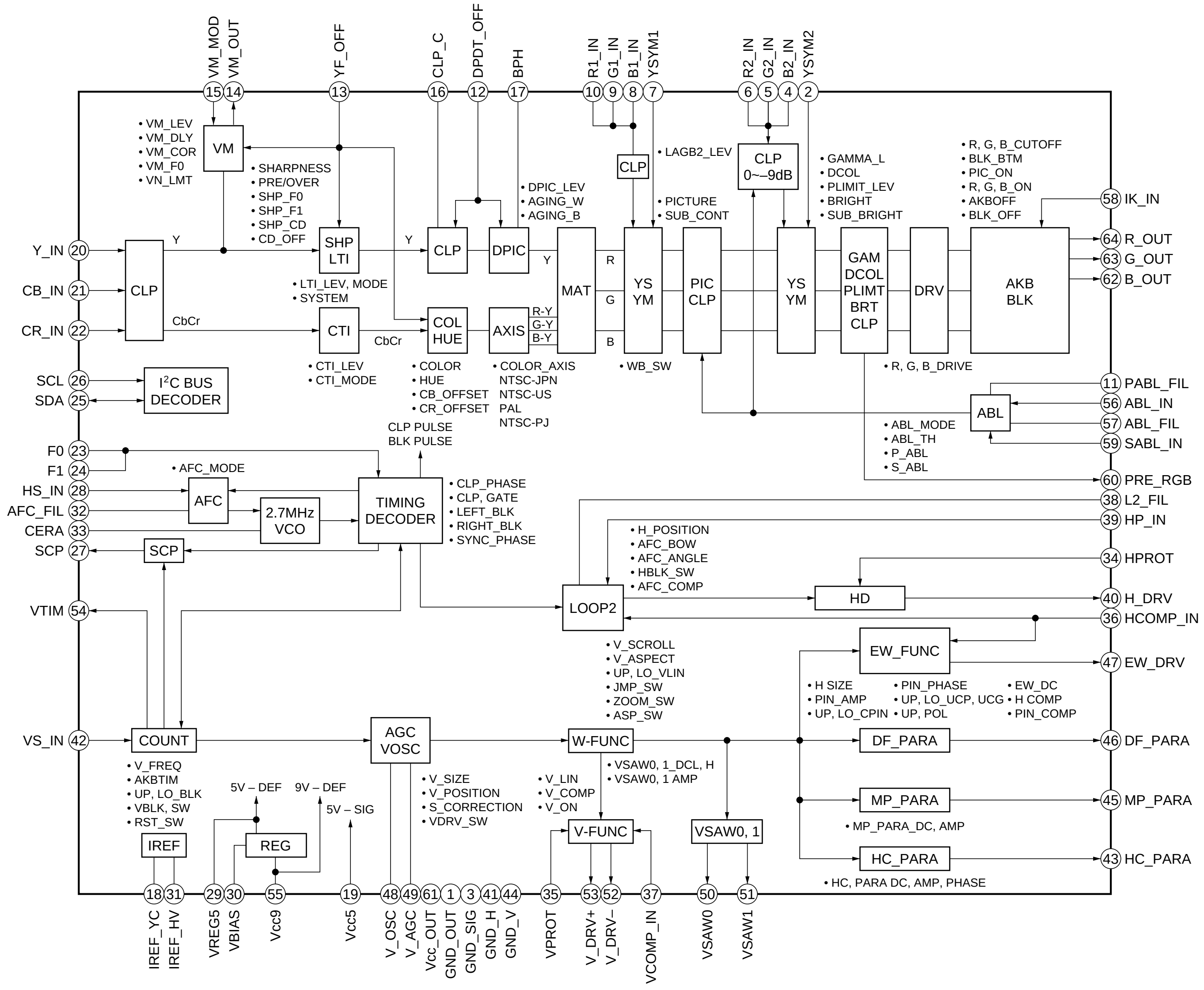
⑥  6.5 Vp-p (V)	⑦  3.5 Vp-p (H)	⑧  104 Vp-p (H)	⑨  7.6 Vp-p (H)	⑩  1030 Vp-p (H)

• K BOARD WAVEFORM

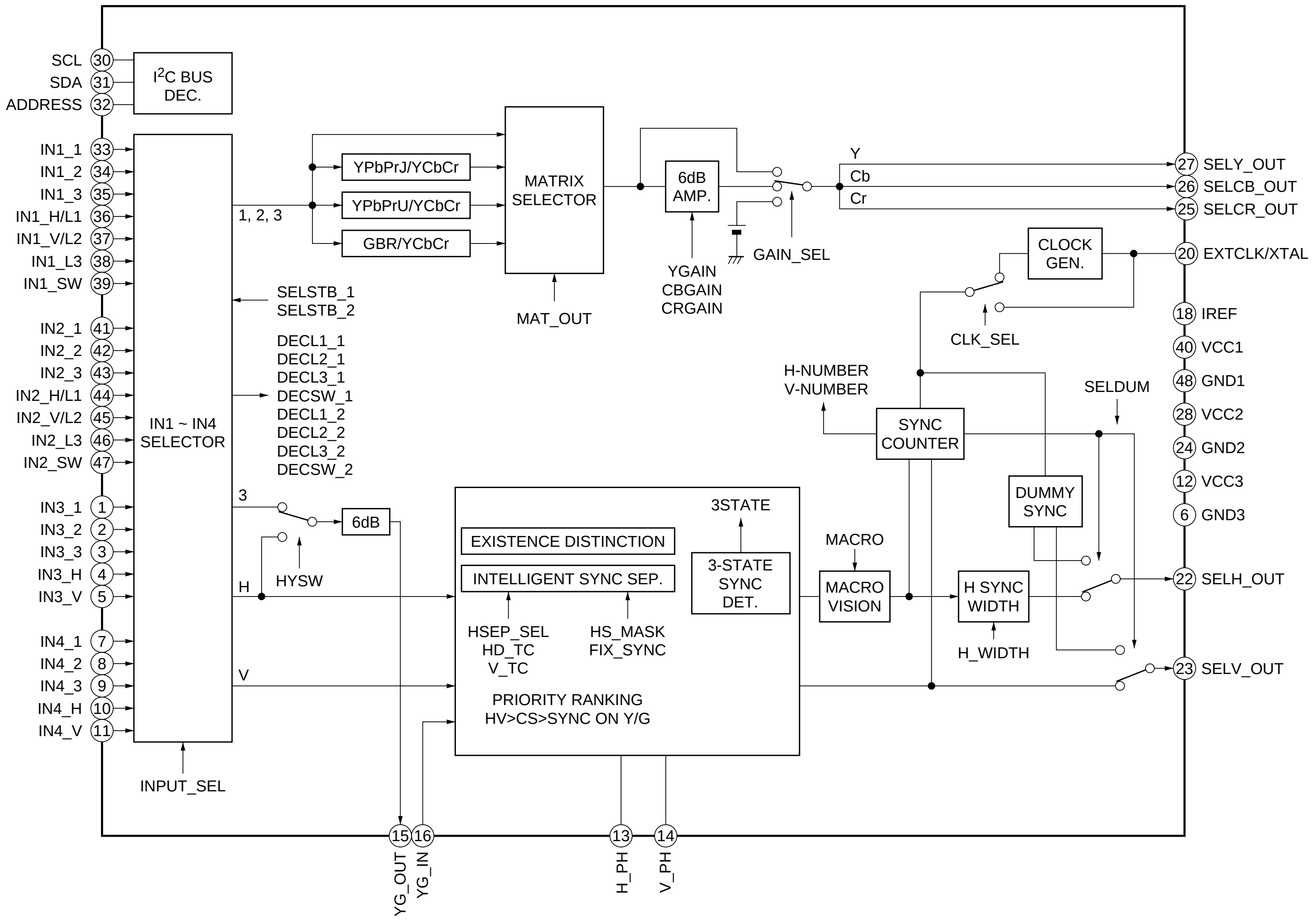
①  4.4 Vp-p (4.0 MHz)

7-6. IC BOLCK DIAGRAMS

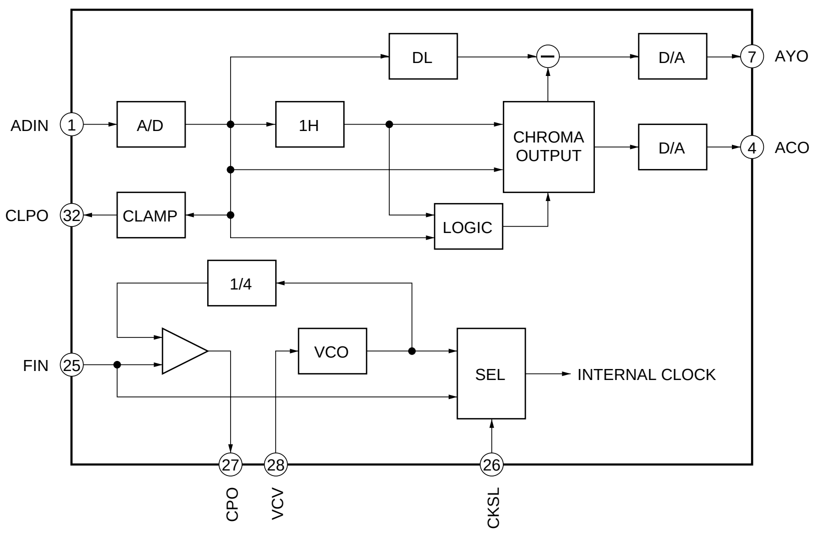
- **A (1/3) BOARD IC3006**
  CXA2150AQ


VM_MOD
VM_OUT
YF_OFF
CLP_C
DPDT_OFF
BPH
R1_IN
G1_IN
B1_IN
YSYM1
R2_IN
G2_IN
B2_IN
YSYM2
• VM_LEV
• VM_DLY
• VM_COR
• VM_F0
• VN_LMT
VM
• SHARPNESS
• PRE/OVER
• SHP_F0
• SHP_F1
• SHP_CD
• CD_OFF
• DPIC_LEV
• AGING_W
• AGING_B
CLP
• LAGB2_LEV
CLP
0~–9dB
• PICTURE
• SUB_CONT
• GAMMA_L
• DCOL
• PLIMIT_LEV
• BRIGHT
• SUB_BRIGHT
• R, G, B_CUTOFF
• BLK_BTM
• PIC_ON
• R, G, B_ON
• AKBOFF
• BLK_OFF
IK_IN
Y_IN
CB_IN
CR_IN
CLP
Y
SHP
LTI
CLP
DPIC
MAT
YS
YM
PIC
CLP
YS
YM
GAM
DCOL
PLIMT
BRT
CLP
DRV
AKB
BLK
R_OUT
G_OUT
B_OUT
CbCr
• LTI_LEV, MODE
• SYSTEM
CTI
CbCr
COL
HUE
AXIS
R-Y
G-Y
B-Y
R
G
B
• CTI_LEV
• CTI_MODE
• COLOR
• HUE
• CB_OFFSET
• CR_OFFSET
• COLOR_AXIS
NTSC-JPN
NTSC-US
PAL
NTSC-PJ
• WB_SW
• R, G, B_DRIVE
SCL
SDA
I²C BUS
DECODER
CLP PULSE
BLK PULSE
PABL_FIL
ABL_IN
ABL_FIL
SABL_IN
ABL
• ABL_MODE
• ABL_TH
• P_ABL
• S_ABL
F0
F1
HS_IN
AFC_FIL
CERA
SCP
• AFC_MODE
AFC
2.7MHz
VCO
TIMING
DECODER
SCP
• CLP_PHASE
• CLP_GATE
• LEFT_BLK
• RIGHT_BLK
• SYNC_PHASE
PRE_RGB
L2_FIL
HP_IN
HPROT
• H_POSITION
• AFC_BOW
• AFC_ANGLE
• HBLK_SW
• AFC_COMP
VTIM
LOOP2
HD
H_DRV
HCOMP_IN
• V_SCROLL
• V_ASPECT
• UP, LO_VLIN
• JMP_SW
• ZOOM_SW
• ASP_SW
EW_FUNC
EW_DRV
• H SIZE
• PIN_AMP
• UP, LO_CPIN
• PIN_PHASE
• UP, LO_UCP, UCG
• UP, POL
• EW_DC
• H COMP
• PIN_COMP
VS_IN
COUNT
AGC
VOSC
W-FUNC
DF_PARA
DF_PARA
• V_FREQ
• AKBTIM
• UP, LO_BLK
• VBLK, SW
• RST_SW
5V – DEF
9V – DEF
5V – SIG
• V_SIZE
• V_POSITION
• S_CORRECTION
• VDRV_SW
• V_LIN
• V_COMP
• V_ON
• VSAW0, 1_DCL, H
• VSAW0, 1 AMP
MP_PARA
MP_PARA
• MP_PARA_DC, AMP
IREF
REG
V-FUNC
VSAW0, 1
HC_PARA
HC_PARA
• HC, PARA DC, AMP, PHASE
IREF_YC
IREF_HV
VREG5
VBIAS
Vcc9
Vcc5
V_OSC
V_AGC
Vcc_OUT
GND_OUT
GND_SIG
GND_H
GND_V
VPROT
V_DRV+
V_DRV–
VCOMP_IN
VSAW0
VSAW1
15
14
13
16
12
17
10
9
8
7
6
5
4
2
58
20
21
22
64
63
62
26
25
11
56
57
59
23
24
28
32
33
27
60
38
39
34
54
40
36
47
42
46
45
43
18
31
29
30
55
19
48
49
61
1
3
41
44
35
53
52
37
50
51

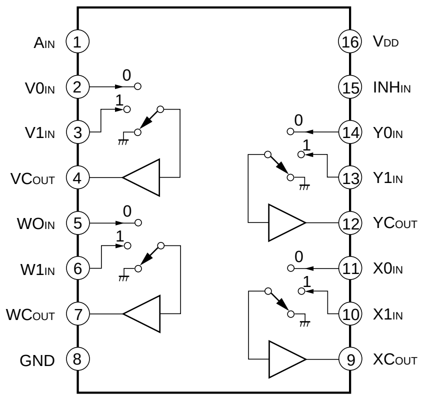
- **B (4/7) BOARD IC200**
  CXA2151Q


SCL
SDA
ADDRESS
I²C BUS
DEC.
IN1_1
IN1_2
IN1_3
IN1_H/L1
IN1_V/L2
IN1_L3
IN1_SW
1, 2, 3
YPbPrJ/YCbCr
YPbPrU/YCbCr
GBR/YCbCr
MATRIX
SELECTOR
6dB
AMP.
Y
Cb
Cr
SELY_OUT
SELCB_OUT
SELCR_OUT
EXTCLK/XTAL
CLOCK
GEN.
GAIN_SEL
YGAIN
CBGAIN
CRGAIN
SELSTB_1
SELSTB_2
MAT_OUT
CLK_SEL
IREF
VCC1
GND1
VCC2
GND2
VCC3
GND3
IN2_1
IN2_2
IN2_3
IN2_H/L1
IN2_V/L2
IN2_L3
IN2_SW
IN1 ~ IN4
SELECTOR
DECL1_1
DECL2_1
DECL3_1
DECSW_1
DECL1_2
DECL2_2
DECL3_2
DECSW_2
H-NUMBER
V-NUMBER
SYNC
COUNTER
SELDUM
DUMMY
SYNC
IN3_1
IN3_2
IN3_3
IN3_H
IN3_V
3
6dB
HYSW
H
3STATE
EXISTENCE DISTINCTION
INTELLIGENT SYNC SEP.
3-STATE
SYNC
DET.
MACRO
MACRO
VISION
H SYNC
WIDTH
SELH_OUT
HSEP_SEL
HD_TC
V_TC
HS_MASK
FIX_SYNC
H_WIDTH
IN4_1
IN4_2
IN4_3
IN4_H
IN4_V
V
PRIORITY RANKING
HV>CS>SYNC ON Y/G
SELV_OUT
INPUT_SEL
YG_OUT
YG_IN
H_PH
V_PH
30
31
32
33
34
35
36
37
38
39
41
42
43
44
45
46
47
1
2
3
4
5
7
8
9
10
11
27
26
25
20
18
40
48
28
24
12
6
22
23
15
16
13
14

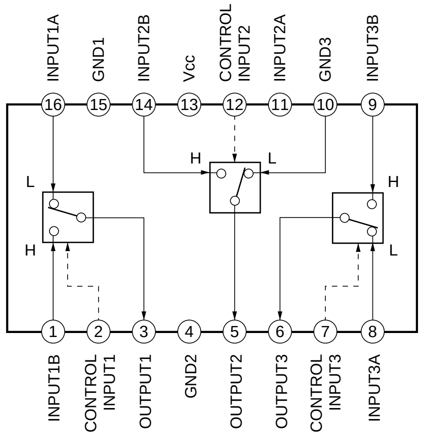
- **B (5/7) BOARD IC204**
  CXD2073Q


DL
D/A
AYO
ADIN
A/D
1H
CHROMA
OUTPUT
D/A
ACO
CLPO
CLAMP
LOGIC
1/4
FIN
VCO
SEL
INTERNAL CLOCK
CPO
VCV
CKSL
7
1
4
32
25
27
28
26

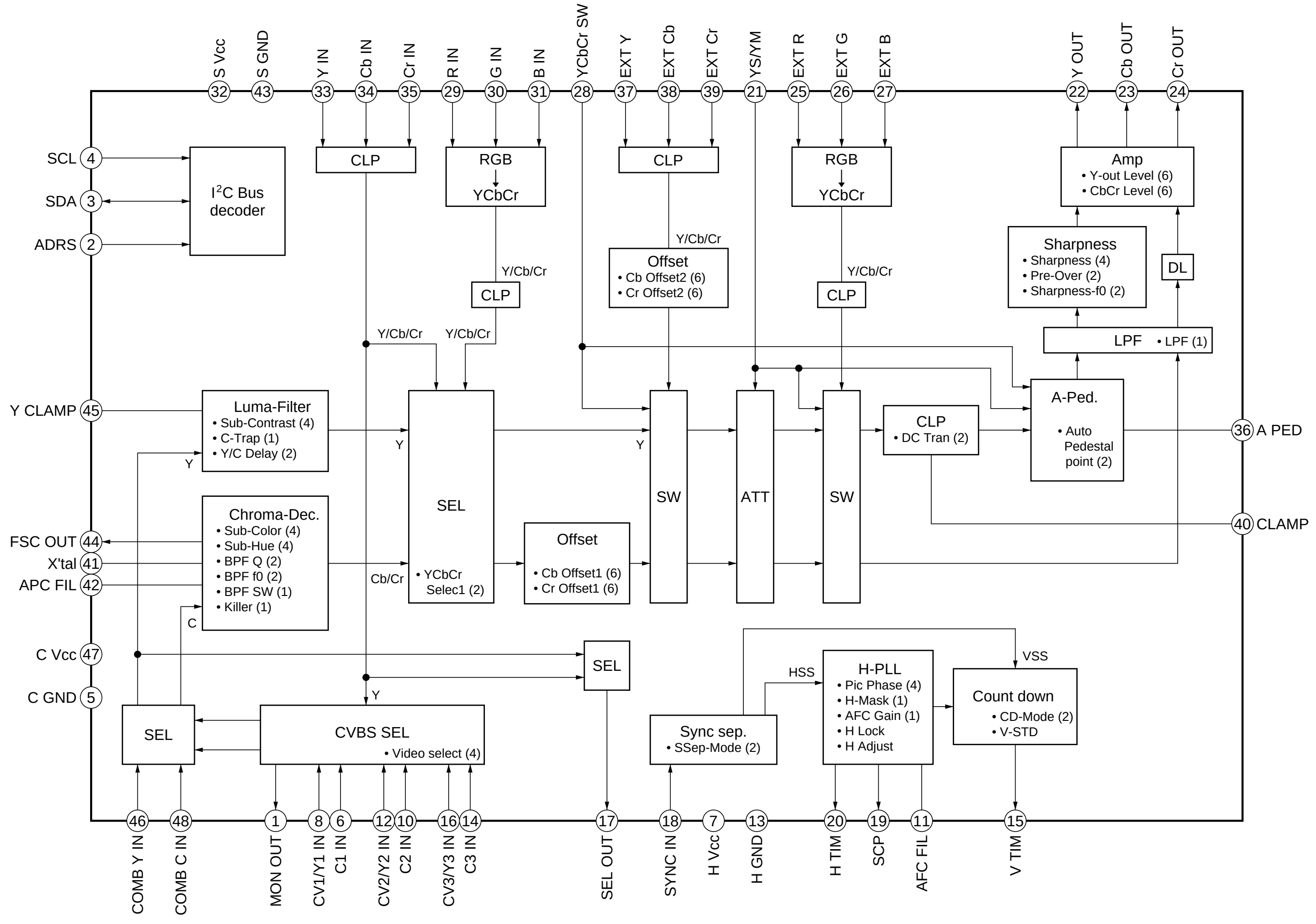
- **B (1/7) BOARD IC006**
  TC74HCT157AF
- **B (4/7) BOARD IC203, IC206**
  TC74LVX157FT


AIN
V0IN
V1IN
VCOUT
WOIN
W1IN
WCOUT
GND
VDD
INHIN
Y0IN
Y1IN
YCOUT
X0IN
X1IN
XCOUT
0
1
1
2
3
4
5
6
7
8
16
15
14
13
12
11
10
9

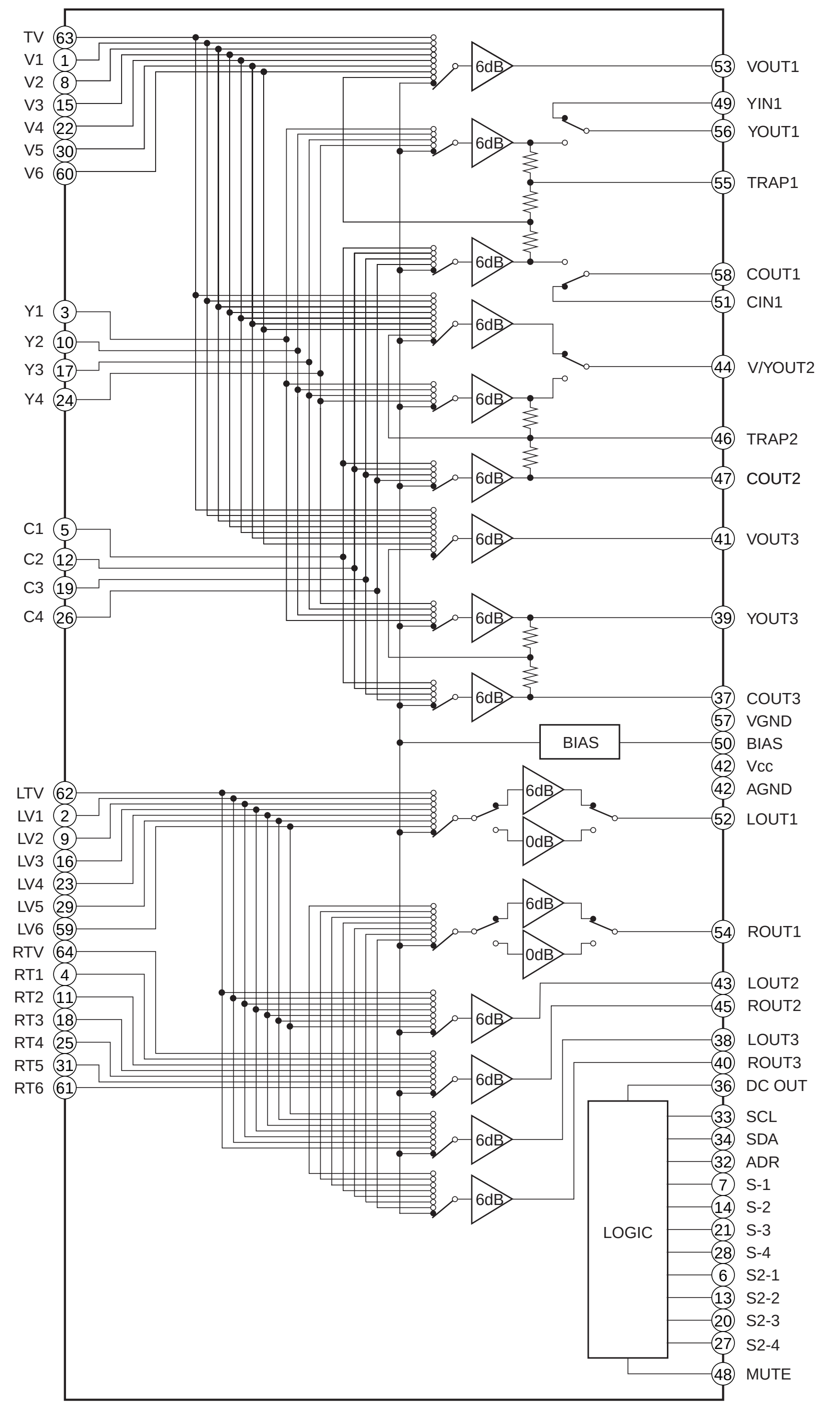
- **B (1/7) BOARD IC002**
- **B (4/7) BOARD IC201, IC205**
  M52055FP


INPUT1A
GND1
INPUT2B
Vcc
CONTROL
INPUT2
INPUT2A
GND3
INPUT3B
16
15
14
13
12
11
10
9
L
H
H
L
H
L
1
2
3
4
5
6
7
8
INPUT1B
CONTROL
INPUT1
OUTPUT1
GND2
OUTPUT2
OUTPUT3
CONTROL
INPUT3
INPUT3A

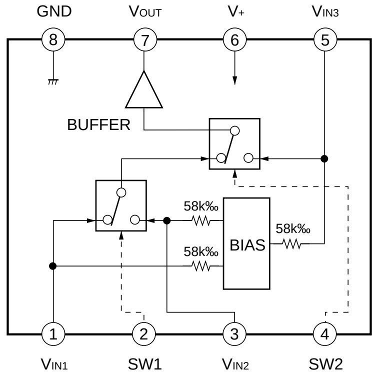
- **B (4/7) BOARD IC207**
- **B (5/7) BOARD IC202**
  CXA2103Q


S Vcc 32
S GND 43
Y IN 33
Cb IN 34
Cr IN 35
R IN 29
G IN 30
B IN 31
YCbCr SW 28
EXT Y 37
EXT Cb 38
EXT Cr 39
YS/YM 21
EXT R 25
EXT G 26
EXT B 27
Y OUT 22
Cb OUT 23
Cr OUT 24
SCL 4
SDA 3
ADRS 2
I²C Bus decoder
CLP
RGB → YCbCr
CLP
RGB → YCbCr
Amp
• Y-out Level (6)
• CbCr Level (6)
Y/Cb/Cr
Offset
• Cb Offset2 (6)
• Cr Offset2 (6)
Sharpness
• Sharpness (4)
• Pre-Over (2)
• Sharpness-f0 (2)
DL
LPF • LPF (1)
Y CLAMP 45
Luma-Filter
• Sub-Contrast (4)
• C-Trap (1)
• Y/C Delay (2)
SEL
• YCbCr Selec1 (2)
A-Ped.
• Auto Pedestal point (2)
CLP
• DC Tran (2)
36 A PED
40 CLAMP
FSC OUT 44
X'tal 41
APC FIL 42
Chroma-Dec.
• Sub-Color (4)
• Sub-Hue (4)
• BPF Q (2)
• BPF f0 (2)
• BPF SW (1)
• Killer (1)
Cb/Cr
Offset
• Cb Offset1 (6)
• Cr Offset1 (6)
SW
ATT
SW
C Vcc 47
C GND 5
SEL
SEL
CVBS SEL
• Video select (4)
Sync sep.
• SSep-Mode (2)
HSS
H-PLL
• Pic Phase (4)
• H-Mask (1)
• AFC Gain (1)
• H Lock
• H Adjust
VSS
Count down
• CD-Mode (2)
• V-STD
COMB Y IN 46
COMB C IN 48
MON OUT 1
CV1/Y1 IN 8
C1 IN 6
CV2/Y2 IN 12
C2 IN 10
CV3/Y3 IN 16
C3 IN 14
SEL OUT 17
SYNC IN 18
H Vcc 7
H GND 13
H TIM 20
SCP 19
AFC FIL 11
V TIM 15

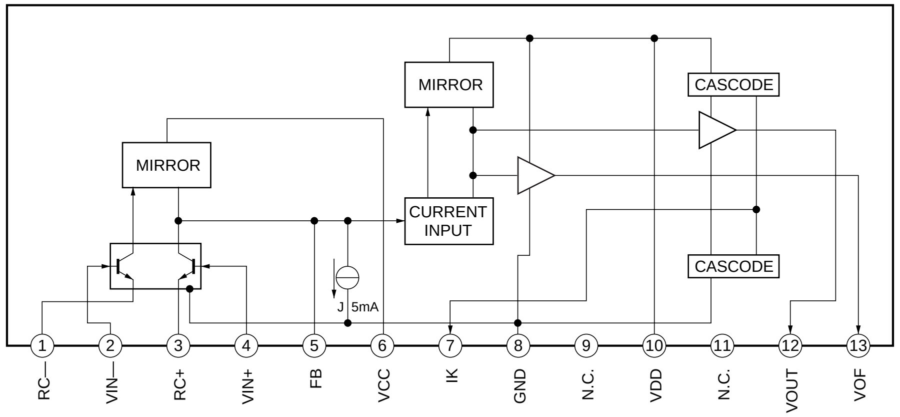
- **B (7/7) BOARD IC401**
  CXA2069Q


TV 63
V1 1
V2 8
V3 15
V4 22
V5 30
V6 60
Y1 3
Y2 10
Y3 17
Y4 24
C1 5
C2 12
C3 19
C4 26
LTV 62
LV1 2
LV2 9
LV3 16
LV4 23
LV5 29
LV6 59
RTV 64
RT1 4
RT2 11
RT3 18
RT4 25
RT5 31
RT6 61
6dB
0dB
53 VOUT1
49 YIN1
56 YOUT1
55 TRAP1
58 COUT1
51 CIN1
44 V/YOUT2
46 TRAP2
47 COUT2
41 VOUT3
39 YOUT3
37 COUT3
57 VGND
50 BIAS
42 Vcc
42 AGND
52 LOUT1
54 ROUT1
43 LOUT2
45 ROUT2
38 LOUT3
40 ROUT3
36 DC OUT
33 SCL
34 SDA
32 ADR
7 S-1
14 S-2
21 S-3
28 S-4
6 S2-1
13 S2-2
20 S2-3
27 S2-4
48 MUTE
BIAS
LOGIC

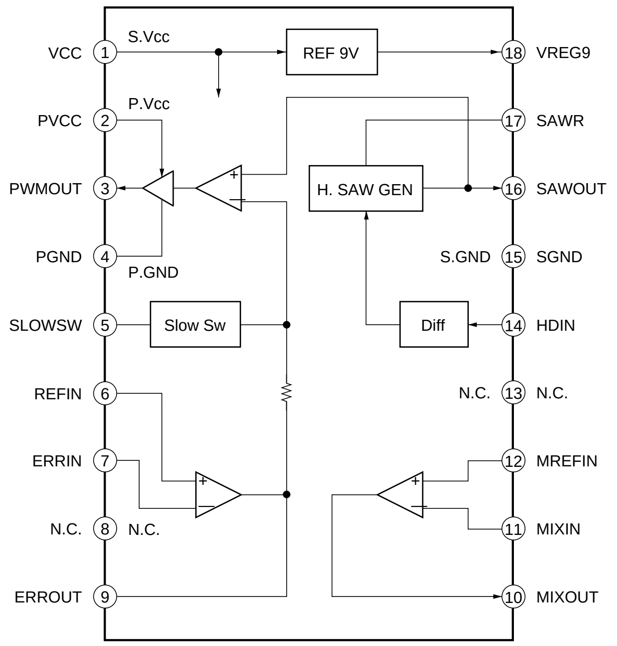
- **B (7/7) BOARD IC402, IC403**
  NJM2521M


GND 8
VOUT 7
V+ 6
VIN3 5
BUFFER
58k‰
58k‰
58k‰
BIAS
1 VIN1
2 SW1
3 VIN2
4 SW2

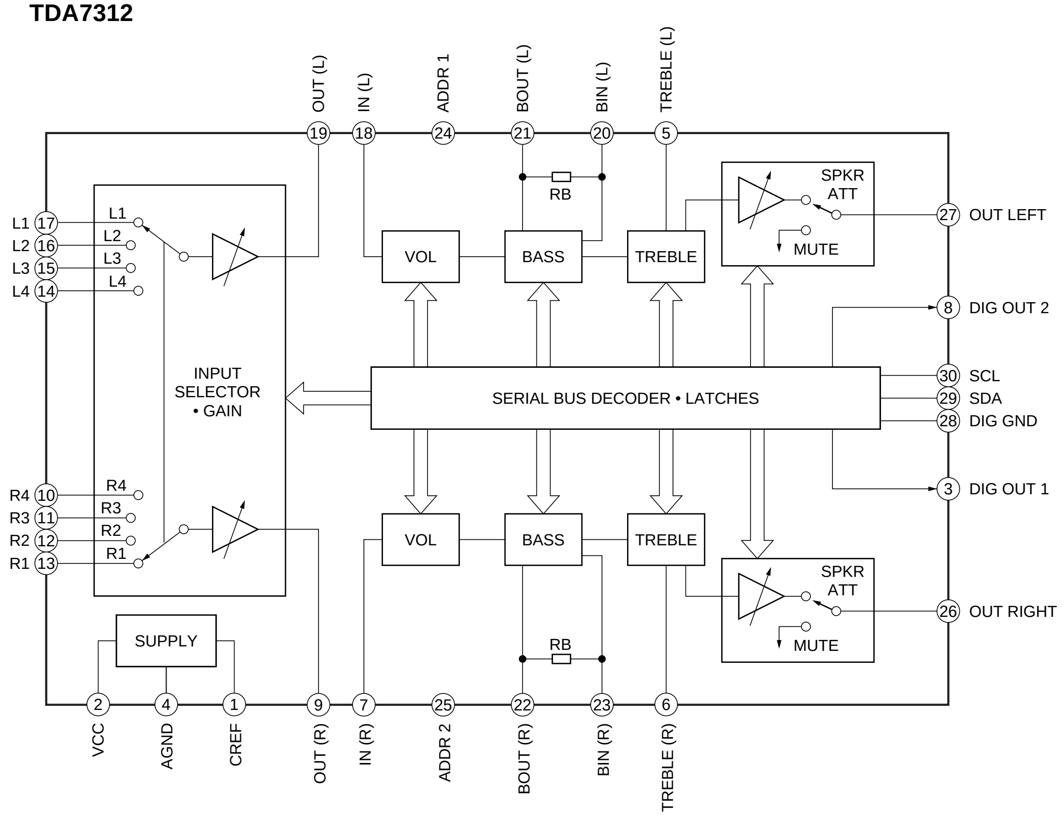
- **CB BOARD IC3901**
- **CG BOARD IC3801**
- **CR BOARD IC3701**
  TDA6120Q


MIRROR
MIRROR
CASCODE
CASCODE
CURRENT INPUT
J 5mA
1 RC
2 VIN–
3 RC+
4 VIN+
5 FB
6 VCC
7 IK
8 GND
9 N.C.
10 VDD
11 N.C.
12 VOUT
13 VOF

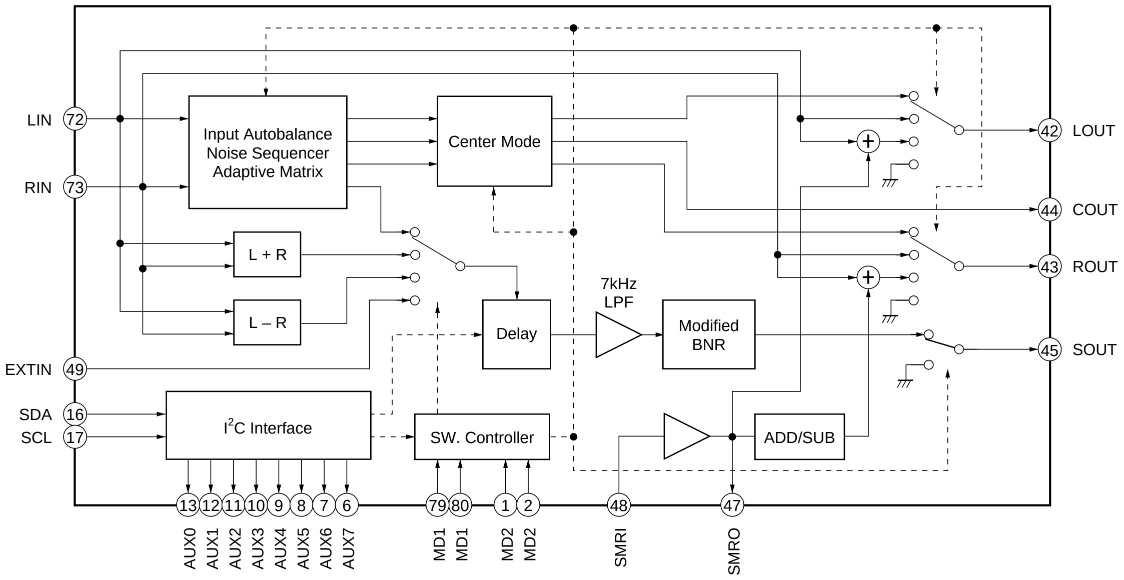
- **D (2/3) BOARD IC8008**
BA9759F-E2


VCC 1
S.Vcc
REF 9V
18 VREG9
PVCC 2
P.Vcc
17 SAWR
PWMOUT 3
H. SAW GEN
16 SAWOUT
PGND 4
P.GND
S.GND 15 SGND
SLOWSW 5
Slow Sw
Diff
14 HDIN
REFIN 6
N.C. 13 N.C.
ERRIN 7
12 MREFIN
N.C. 8 N.C.
11 MIXIN
ERROUT 9
10 MIXOUT

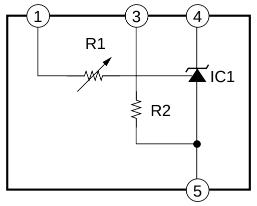
- **K (1/3) BOARD IC2302, IC2303**
- **K (2/3) BOARD IC2301**
TDA7312


OUT (L) 19
IN (L) 18
ADDR 1 24
BOUT (L) 21
BIN (L) 20
TREBLE (L) 5
RB
SPKR ATT
27 OUT LEFT
L1 17
L2 16
L3 15
L4 14
L1
L2
L3
L4
VOL
BASS
TREBLE
MUTE
8 DIG OUT 2
INPUT SELECTOR • GAIN
SERIAL BUS DECODER • LATCHES
30 SCL
29 SDA
28 DIG GND
3 DIG OUT 1
R4 10
R3 11
R2 12
R1 13
R4
R3
R2
R1
VOL
BASS
TREBLE
SPKR ATT
26 OUT RIGHT
MUTE
SUPPLY
RB
2 VCC
4 AGND
1 CREF
9 OUT (R)
7 IN (R)
25 ADDR 2
22 BOUT (R)
23 BIN (R)
6 TREBLE (R)

- **K (1/3) BOARD IC2101**
NJW1106

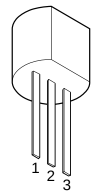

LIN 72
RIN 73
Input Autobalance Noise Sequencer Adaptive Matrix
Center Mode
42 LOUT
44 COUT
43 ROUT
L + R
L – R
Delay
7kHz LPF
Modified BNR
45 SOUT
EXTIN 49
SDA 16
SCL 17
I²C Interface
SW. Controller
ADD/SUB
13 AUX0
12 AUX1
11 AUX2
10 AUX3
9 AUX4
8 AUX5
7 AUX6
6 AUX7
79 MD1
80 MD1
1 MD2
2 MD2
48 SMRI
47 SMRO

- **G (2/2) BOARD IC6101**
DM-58

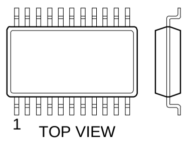

1
3
4
R1
IC1
R2
5

7-7. SEMICONDUCTORS

AN77L12-TA
NJM78L12A-T3
NJM79L05A
NJM79L05A-T3

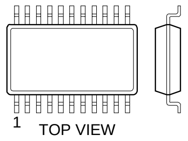


BA9759F-E2



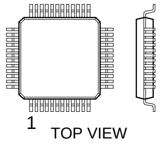
18pin SOP

CD0031AM



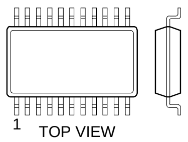
48pin SOP

CM0017AF



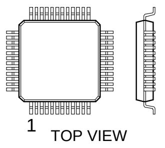
100pin QFP

CXA1726AM
CXA1726AM-T6



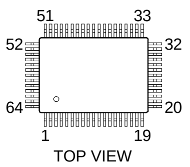
30pin SOP

CXA2103Q
CXA2151Q

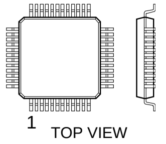


48pin QFP

CXA2069Q
CXA2150AQ

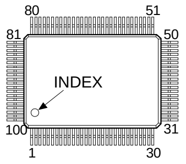

51
33
52
32
64
20
1
19
TOP VIEW

CXD2073Q-T4

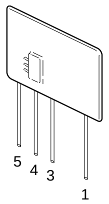


32pin QFP

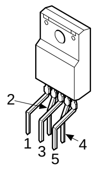
CXP961064-001Q
M306V2ME-154FP
μPD64082GF-3BA


80
51
81
50
INDEX
100
31
1
30

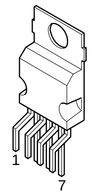
DM-58



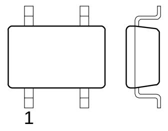
LA6500-FA
LA6500P-FA



LA78045
TDA2052

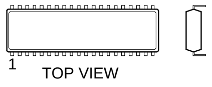


MAX4450EUK-TG069



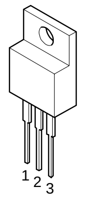
5pin CHIP

MCZ3001D

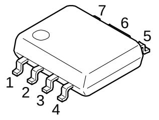


18pin DIP

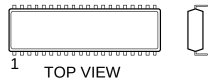
MC7805CT
MC7812CT
NJM7805FA
NJM7812FA
PQ09RF21
TA7805S
TA7812S



MM1476AF(TP)

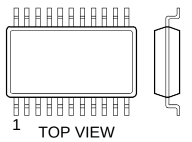


MSM514265C-60JS
μPD424210LE-60-E2



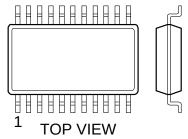
40pin DIP

M24C04-WMN6T(A)
M24C32-WMN6T(A)
NJM2068V-TE2
NJM2521M(TE2)
NJM2903M
NJM2903M-TE2
NJM2904M
NJM2904M(TE2)
NJM4558M-T2
NJM4558M-TE2
NJM4558V-TE2
μPC4558G2



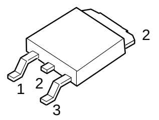
8pin SOP

M52055FP
TC74HCT157AF
TC74HCT157AF(EL)
TC74LVX157FT(EL)

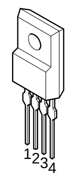


16pin SOP

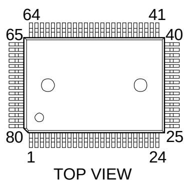
NJM2391DL1-33-TEI



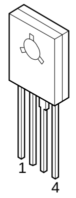
NJM2395AF05
NJM2395F09



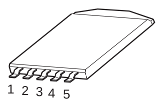
NJW1106FC2


64
41
65
40
80
25
1
24
TOP VIEW

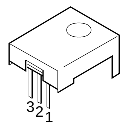
PQ30RV11



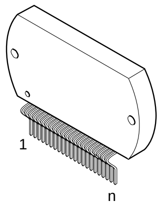
PST9143NL



SBX1971-51P

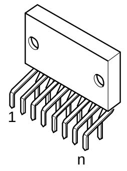


STK392-560



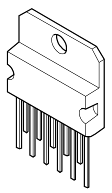
n=18pin

TDA6120Q/N2/S1

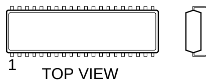


n=13pin

TDA7265

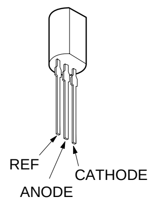


TDA7312

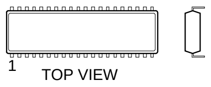


30pin DIP

μPC1093J-1-T

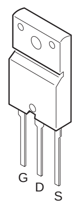

REF
CATHODE
ANODE

μPC393C

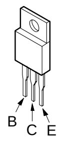


8pin DIP

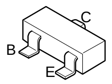
IRFIB7N50A-LF31



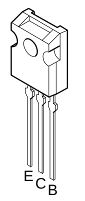
1MB12-140-F153A
2SA2005
2SC4634LS-CB11
2SC5511



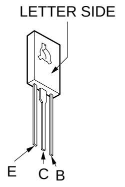
2SA1037AK-T146-QR
2SA1037AK-T146-R
2SA1226
2SA1226-T1E3E4
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-T-146-QR
2SD601A-Q
2SD601A-QRS-TX



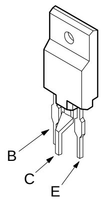
2SA1358-Y
2SC3421-Y



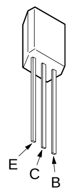
2SC2688(5)-LK


LETTER SIDE
E
C
B

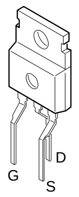
2SC5681-YB



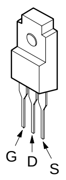
2SD2144S-TP-V
2SD2144S-V



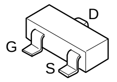
2SJ585LS-CC11



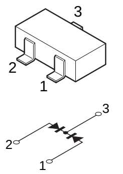
2SK2876-01MR-F122



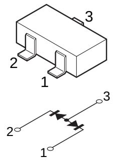
2SK3018-T106



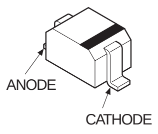
DAN202K
DAN202K-T-146



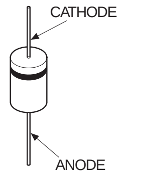
DAP202K
DAP202K-T-146



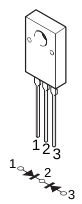
DTZ10B
MA111-TX
UDZ-TE-17- 8.2B
UDZ-TE-17-7.5B
UDZS-TE17-12B
UDZS-TE17-22B
UDZS-TE17-33B
UDZSTE-1710B
UDZSTE-1720B
UDZSTE-175.1B
UDZSTE-175.6B
UDZSTE-177.5B
UDZSTE-178.2B
1SS355TE-17


ANODE
CATHODE

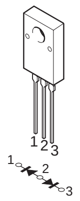
D1NL20U
D1NL20U-TA2
D2L20U
D2L20U-TA
EL1Z
ERA22-08
ERA22-08TP3
GP08D
GP08DPKG23
MTZJ-T-77-18B
MTZJ-T-77-22B
MTZJ-T-77-5.6B
RGP02-17EL-6433
RGP02-17PKG23
RGP10GPKG23
S2L40F
10ERA60-TP
1SS83
1SS83TD


CATHODE
ANODE

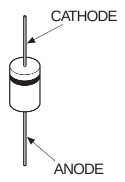
D10SC6M



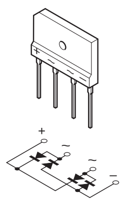
D10SC6MR



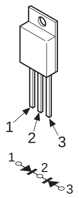
D2L20U-F
ERC04-06SE


CATHODE
ANODE

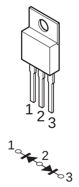
D2SB60A-F04
D4SBS4-F
D6SB60LF



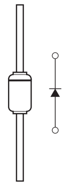
D25SC6MF04



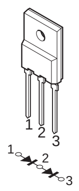
D25SC6MRF04



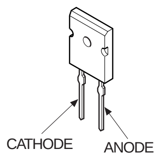
ERD07-15L



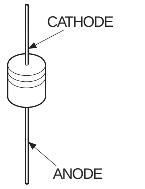
FCQ30A04



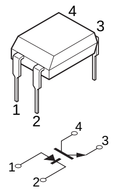
FMQ-G5FMS
PG124S15


CATHODE
ANODE

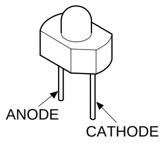
MTZJ-T-77-15B
MTZJ-T-77-20B
MTZJ-T-77-5.1B
RD15ES-B2
RD18ES-B2
RD20ES-B2
RD5.1ESB2
RD5.6ESB2
1SS133T-77


CATHODE
ANODE

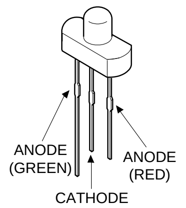
PC123F2
PC123FY2



SLR-325VCT31


ANODE
CATHODE

SPR-325MVW


ANODE
(GREEN)
ANODE
(RED)
CATHODE

SECTION 8
EXPLODED VIEWS

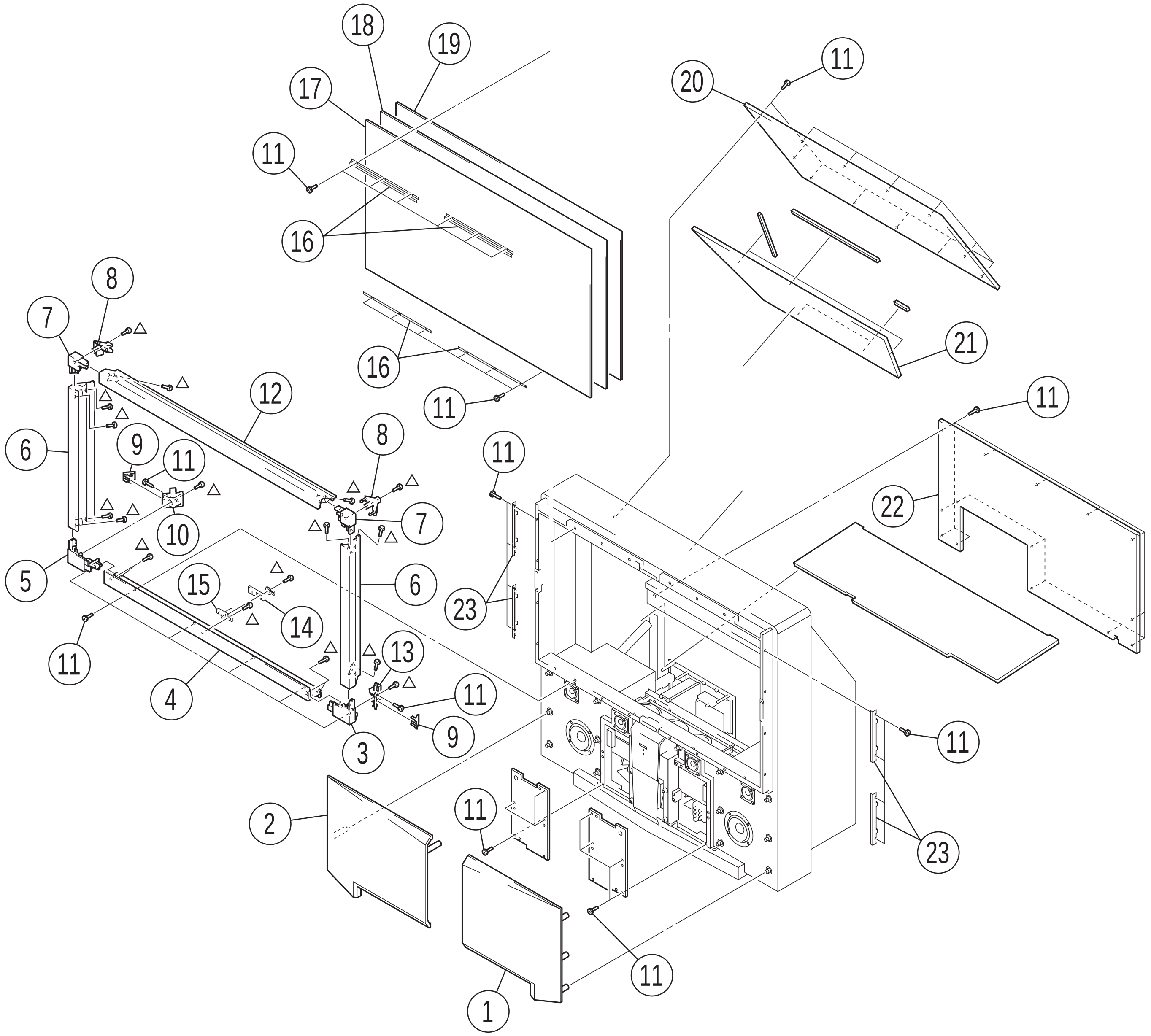
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. SCREEN AND SCREEN FRAME BLOCK

△ : 7-685-661-71 +BVTP 4X12



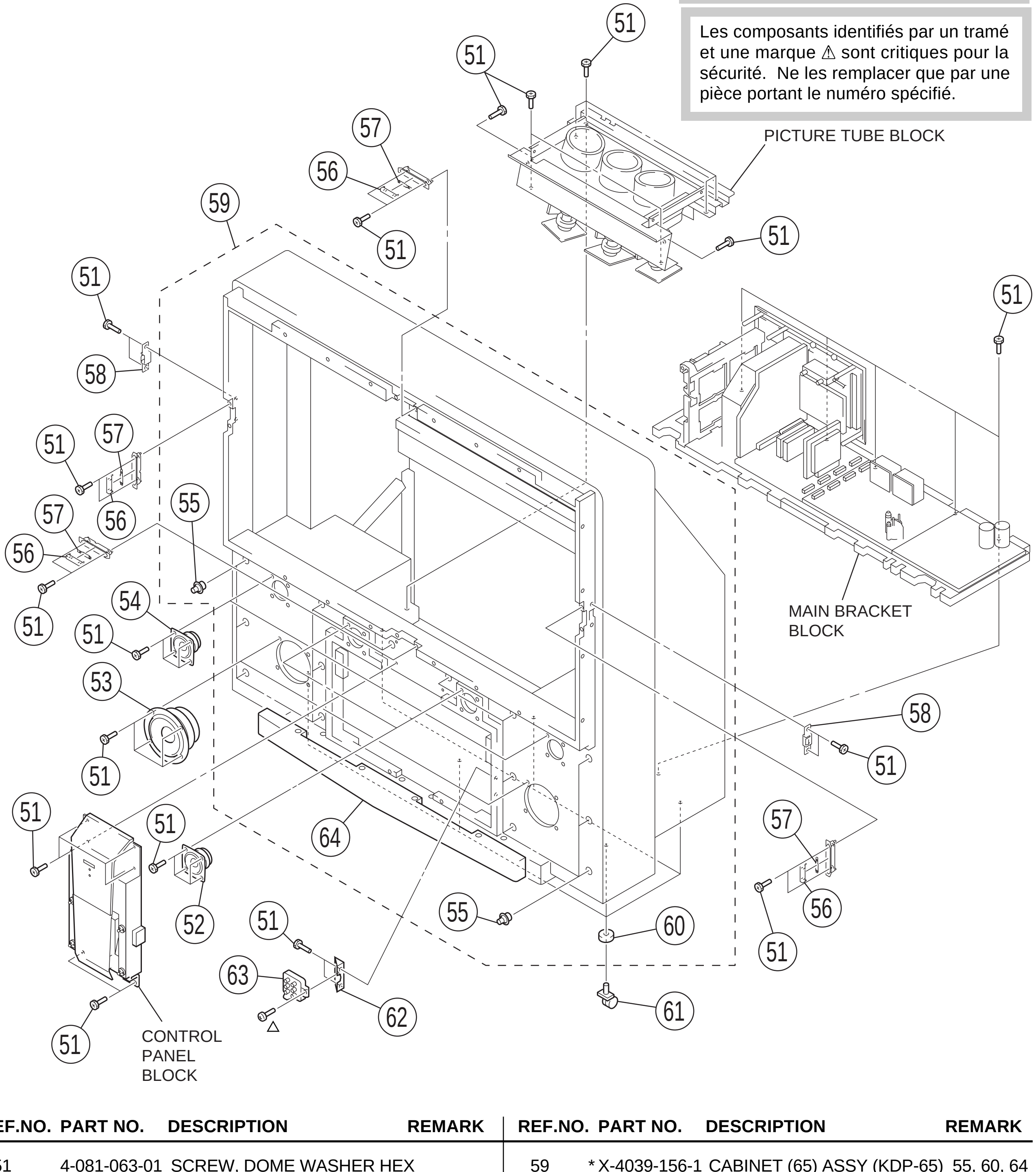
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4039-155-1	GRILLE (R) ASSY, SPEAKER (KDP-65)	
1	X-4039-157-1	GRILLE (R) ASSY, SPEAKER (KDP-57)	
2	X-4039-154-1	GRILLE (L) ASSY, SPEAKER (KDP-65)	
2	X-4039-158-1	GRILLE (L) ASSY, SPEAKER (KDP-57)	
3	4-076-882-11	BLOCK (R), CORNER	
4	4-076-880-21	FRAME LW, SCREEN (KDP-65)	
4	4-076-880-31	FRAME LW, SCREEN (KDP-57)	
5	4-076-883-11	BLOCK (L), CORNER	
6	4-076-879-21	FRAME SD, SCREEN (KDP-65)	
6	4-076-879-31	FRAME SD, SCREEN (KDP-57)	
7	4-076-881-11	BLOCK (U), CORNER	
8	4-076-884-01	COVER (U), CORNER BLOCK	
9	* 4-076-903-01	COVER, SCREW	
10	4-079-341-01	COVER (L), CORNER BLOCK	
11	4-081-063-01	SCREW, DOME WASHER HEX	TAP 4X20
12	4-076-878-21	FRAME U, SCREEN (KDP-65)	
12	4-076-878-31	FRAME U, SCREEN (KDP-57)	
13	4-079-342-01	COVER (R), CORNER BLOCK	
14	* A-1372-983-A	HC BOARD, COMPLETE	
15	* 4-076-887-02	BRACKET, HC	
16	* 4-080-429-01	HOLDER (L), SCREEN	
17	4-083-713-11	SCREEN (57W), CONTRAST (KDP-57)	
17	4-083-714-11	SCREEN (65W), CONTRAST (KDP-65)	
18	4-076-305-11	PLATE (65WL), DIFFUSION (KDP-65)	
18	4-076-308-11	PLATE (57WL), DIFFUSION (KDP-57)	
19	4-076-309-11	PLATE (57WF), DIFFUSION (KDP-57)	
19	4-083-715-11	PLATE (65WFV90), DIFFUSION (KDP-65)	
20	* 4-080-436-01	BOARD (57), MIRROR (KDP-57)	
20	* 4-080-442-01	BOARD (65), MIRROR (KDP-65)	
21	4-079-954-01	MIRROR (57) (KDP-57)	
21	4-079-955-01	MIRROR (65) (KDP-65)	
22	* 4-083-979-01	BOARD (65), REAR (KDP-65)	
22	* 4-083-984-01	BOARD 57, REAR (KDP-57)	
23	* 4-080-430-01	HOLDER (S), SCREEN	

8-2. CABINET BLOCK

△ : 7-685-661-71 +BVTP 4X12

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

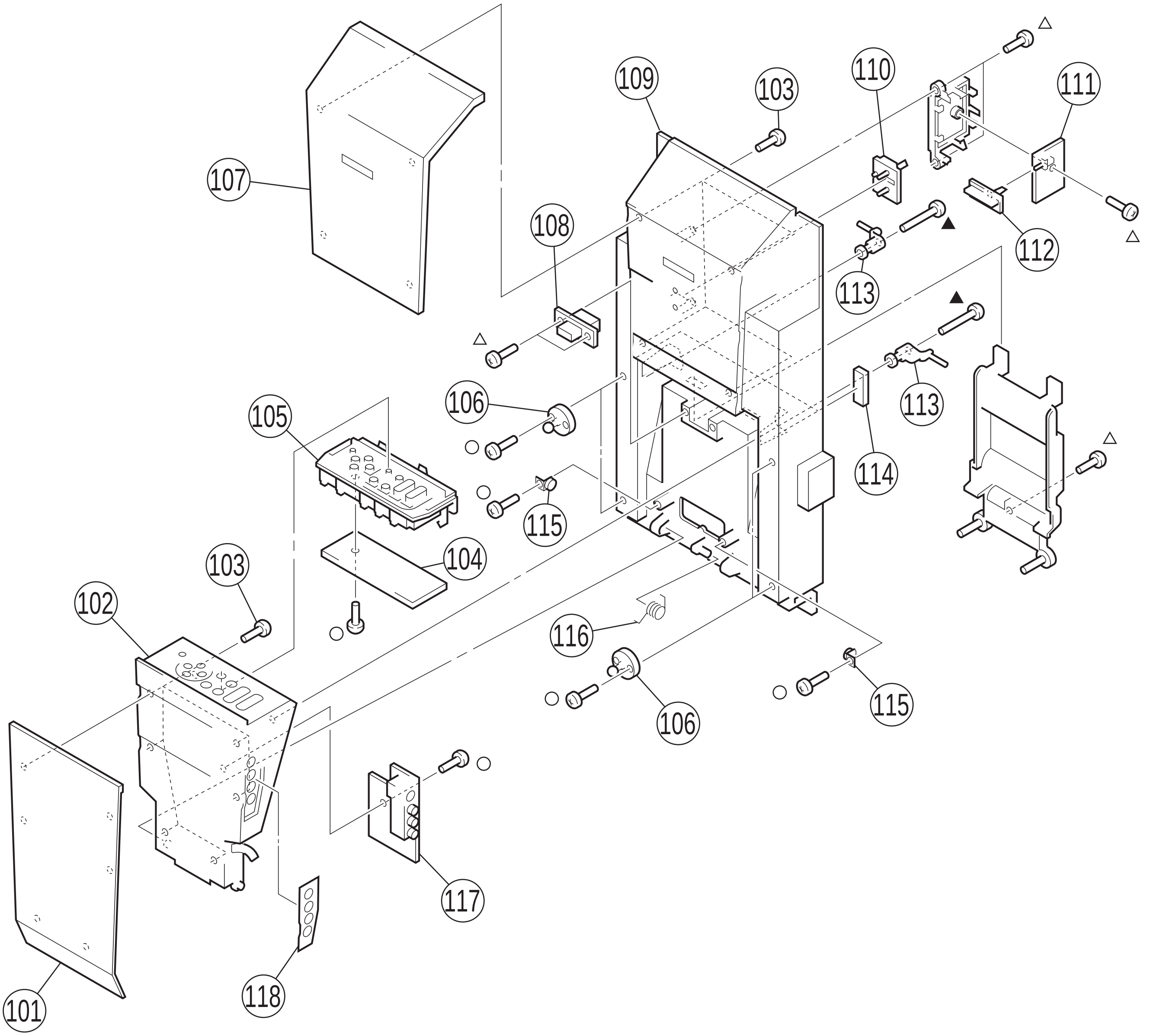
Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.


51
51
57
56
59
51
PICTURE TUBE BLOCK
51
51
51
58
51
57
55
57
56
56
51
54
51
MAIN BRACKET BLOCK
53
58
51
51
51
51
64
57
52
51
55
60
56
51
63
62
61
△
51
CONTROL PANEL BLOCK

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-081-063-01	SCREW, DOME WASHER HEX	TAP 4X20
52	1-529-830-12	SPEAKER (10CM)	
53	1-529-831-11	SPEAKER (16CM)	
54	1-529-832-11	SPEAKER (10CM)	
55	4-063-421-02	LATCH (K)	
56	* 4-069-680-01	BRACKET (B), SENSOR	
57	* A-1391-148-A	S BOARD, COMPLETE	
58	4-076-877-01	CATCHER, FRAME	
59	* X-4039-156-1	CABINET (65) ASSY (KDP-65)	55, 60, 64
59	* X-4039-159-1	CABINET (57) ASSY (KDP-57)	55, 60, 64
60	4-030-850-03	SOCKET, CASTER	
61	4-040-508-01	CASTER	
62	* 4-063-403-01	BRACKET, FOCUS PACK (KDP-65)	
63	⚠ 1-223-925-31	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
64	* 4-080-433-01	SKIRT (57), FRONT (KDP-57)	
64	* 4-080-439-01	SKIRT (65), FRONT (KDP-65)	

8-3. CONTROL PANEL BLOCK

△ : 7-685-661-71 +BVTP 4X12
○ : 7-685-648-71 +BVTP 3X12
▲ : 7-685-152-19 +BV 3X25



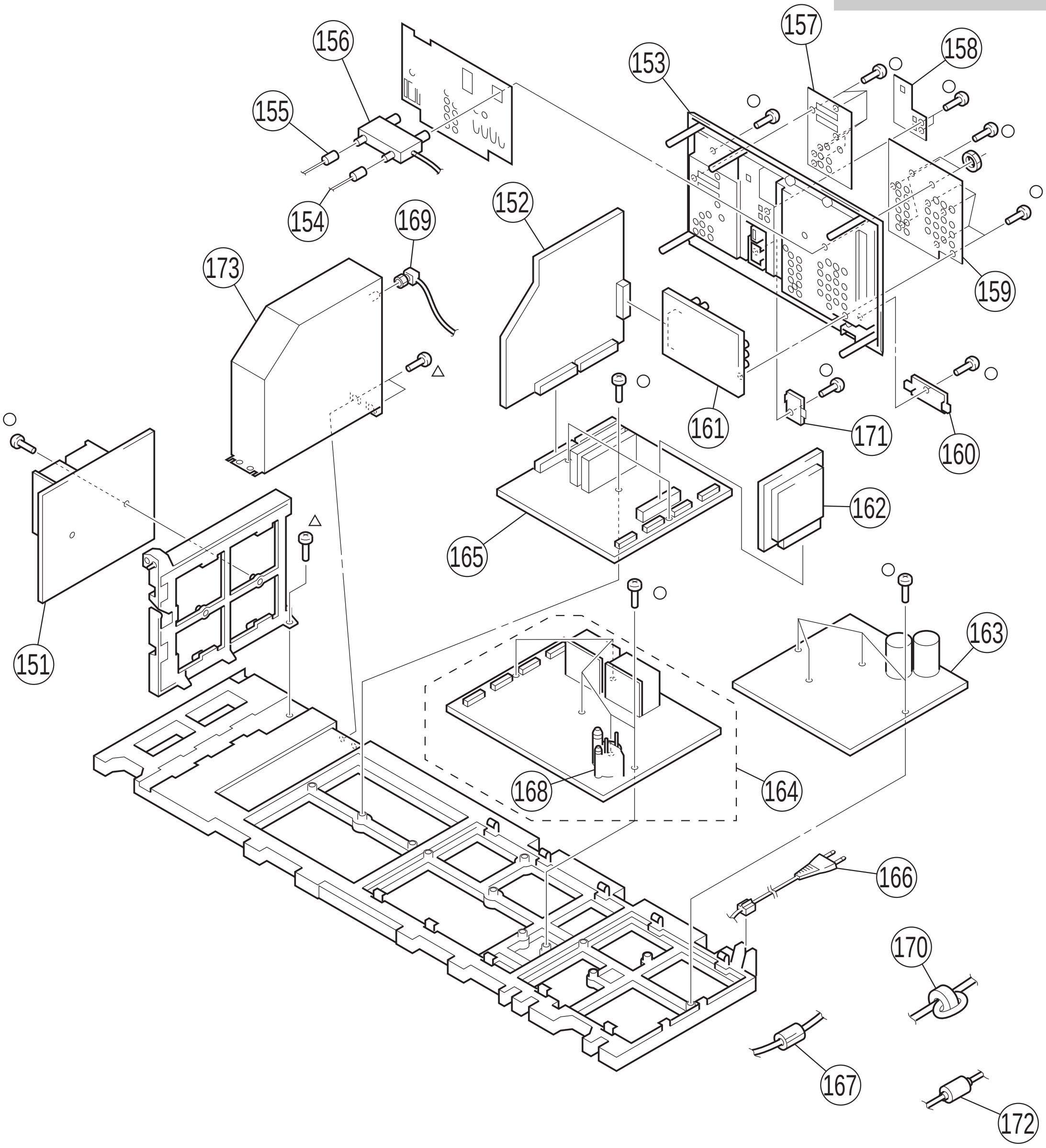
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
101	4-077-631-11	PANEL, DOOR		109	* 4-076-905-01	BRACKET, CONTROL (57) (KDP-57)	
102	4-076-896-11	BRACKET, DOOR		110	* 4-076-899-01	GUIDE, LED	
103	3-701-809-21	SCREW, TERMINAL (M3X6)		111	* A-1372-986-A	HD BOARD, COMPLETE	
104	* A-1372-984-A	HA BOARD, COMPLETE		112	4-076-900-01	BUTTON, POWER	
105	4-081-874-01	BUTTON, MULTI		113	4-077-630-01	STOPPER (U), DOOR	
106	4-054-709-01	STRIKE		114	* 4-080-583-01	SPACER, FOAM	
107	4-077-629-11	PANEL, CONTROL (KDP-65)		115	4-919-393-42	DAMPER	
107	4-077-633-11	PANEL, CONTROL (KDP-57)		116	* 4-077-628-01	SPRING, DOOR	
108	4-076-904-01	PUSH CATCH		117	* A-1372-985-A	HB BOARD, COMPLETE	
109	* 4-076-902-01	BRACKET, CONTROL (65) (KDP-65)		118	4-077-632-01	LABEL, FRONT TERMINAL	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-4. MAIN BRACKET BLOCK

△ : 7-685-661-71 +BVTP 4X12
○ : 7-685-648-71 +BVTP 3X12



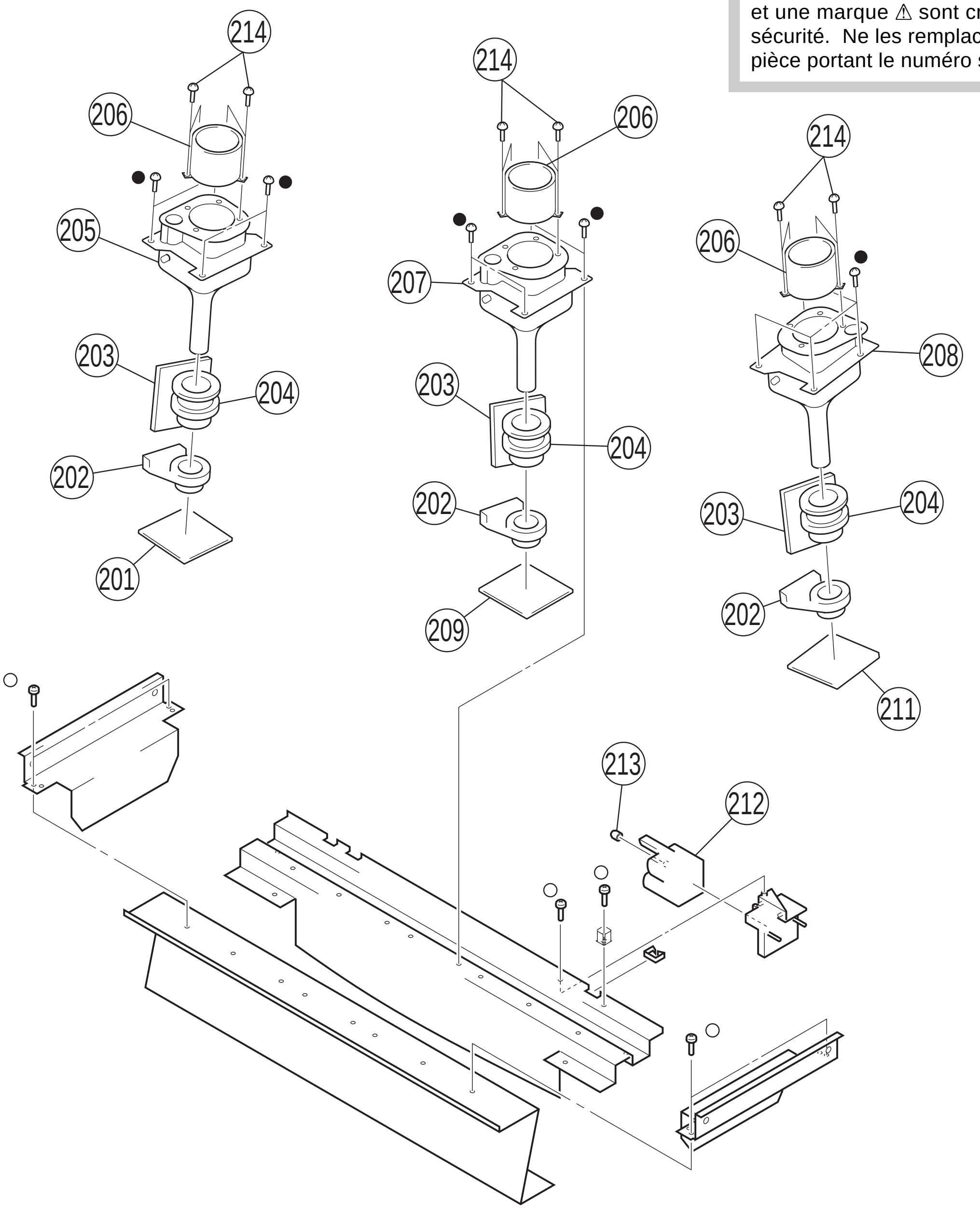
REF.NO.	PART NO.	DESCRIPTION	REMARK
151	* A-1380-653-A	K BOARD, COMPLETE	
152	SEE SUPPLEMENT-2		
153	4-081-876-01	TERMINAL BOARD	
154	* 1-556-945-21	CABLE, P-P	
155	* 1-557-056-31	CABLE, P-P	
156	1-786-183-11	SWITCH, ANTENNA	
157	4-081-877-01	LABEL, AUDIO TERMINAL	
158	4-081-878-01	LABEL, DIGITAL TERMINAL	
159	4-081-882-01	LABEL, VIDEO TERMINAL	
160	4-069-675-01	CAP, TERMINAL BOARD	
161	* A-1373-860-A	U BOARD, COMPLETE	
162	* A-1299-523-A	AD BOARD, COMPLETE	
163	* A-1316-574-A	G BOARD, COMPLETE	
164	* A-1348-120-A	D BOARD, COMPLETE	168
165	* A-1272-382-A	A BOARD, COMPLETE	
166	⚠ 1-783-595-11	CORD, NOISE FILTER WITH POWER	
167	1-543-653-21	CORE ASSY, BEAD (DIVISION TYPE)	
168	⚠ 1-453-285-31	TRANSFORMER ASSY, FLYBACK	(NX-4006//X4P)
169	1-757-970-11	CORD WITH CONNECTOR (F-TYPE)	
170	1-543-982-11	CORE, FERRITE	
171	* 4-081-602-01	COVER, U BRACKET	
172	1-500-603-11	CLAMP, FERRITE	
173	SEE SUPPLEMENT-2		
173	SEE SUPPLEMENT-2		

8-5. PICTURE TUBE BLOCK

○ : 7-685-648-71 +BVTP 3X12
● : 7-685-661-71 +BVTP 4X12

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



REF.NO.	PART NO.	DESCRIPTION	REMARK
201	* A-1332-186-A	CR BOARD, COMPLETE	
202	⚠ 1-451-535-11	COIL ASSY, VM	
203	* A-1342-612-A	V BOARD, COMPLETE	
204	1-451-537-11	DEFLECTION YOKE	
205	⚠ 8-733-625-05	PICTURE TUBE 07MVC41 (R)-L	(KDP-57)
205	⚠ 8-733-628-05	PICTURE TUBE 07MVC5 (R)-L (KDP-65)	
206	4-076-500-01	LENS (KDP-65)	
206	4-083-750-01	LENS (DELTA 260) (KDP-57)	
207	⚠ 8-733-620-05	PICTURE TUBE 07MVC21 (G)-L	(KDP-57)
207	⚠ 8-733-626-05	PICTURE TUBE 07MVC5 (G)-L (KDP-65)	
208	⚠ 8-733-624-05	PICTURE TUBE 07MVC41 (B)-L	(KDP-57)
208	⚠ 8-733-627-05	PICTURE TUBE 07MVC5 (B)-L (KDP-65)	
209	* A-1332-187-A	CG BOARD, COMPLETE	
211	* A-1332-188-A	CB BOARD, COMPLETE	
212	⚠ 8-598-955-31	BLOCK ASSY, HIGH-VOLTAGE	(HVB-1031)
213	4-373-137-02	CAP (Z), RUBBER	
214	4-052-894-01	SCREW, DOME WASHER HEX	TAP 4X20

SECTION 9

ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS
  PF : µµF

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

SEE SUPPLEMENT-2 B BOARD, COMPLETE
****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C001	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C002	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C003	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C004	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C005	1-115-156-11	CERAMIC CHIP	1µF		10V
C006	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C007	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C008	1-126-933-11	ELECT	100µF	20%	16V
C009	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C010	1-126-933-11	ELECT	100µF	20%	16V
C011	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C014	1-107-715-11	ELECT	22µF	20%	16V
C015	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C018	1-107-715-11	ELECT	22µF	20%	16V
C019	1-107-715-11	ELECT	22µF	20%	16V
C020	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C022	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C024	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C025	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C028	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C029	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C030	1-126-933-11	ELECT	100µF	20%	16V
C031	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C034	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C035	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C036	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C037	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C100	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C101	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C102	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C103	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C104	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C105	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C106	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C107	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C109	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C110	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C111	1-126-933-11	ELECT	100µF	20%	16V
C112	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C113	1-126-933-11	ELECT	100µF	20%	16V
C114	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C115	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C116	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C117	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C118	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C119	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C120	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C121	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C122	1-126-933-11	ELECT	100µF	20%	16V
C123	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C124	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C126	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C127	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C128	1-126-933-11	ELECT	100µF	20%	16V
C129	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C130	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C131	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C200	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C201	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C202	1-126-933-11	ELECT	100µF	20%	16V
C203	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C204	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C205	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C206	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C208	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C209	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C210	1-126-933-11	ELECT	100µF	20%	16V
C211	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C212	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C213	1-126-963-11	ELECT	4.7µF	20%	50V
C214	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C215	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C216	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C217	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C218	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C219	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C220	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C221	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C222	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C223	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C224	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C225	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C226	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C227	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C228	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C229	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C230	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C231	1-126-933-11	ELECT	100µF	20%	16V
C232	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C234	1-126-933-11	ELECT	100µF	20%	16V
C235	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C236	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C237	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C238	1-126-933-11	ELECT	100µF	20%	16V
C239	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C241	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C242	1-126-933-11	ELECT	100µF	20%	16V
C243	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C244	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C245	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C247	1-126-933-11	ELECT	100µF	20%	16V
C248	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C249	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C250	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C251	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C252	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C253	1-126-933-11	ELECT	100µF	20%	16V
C254	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C255	1-126-933-11	ELECT	100µF	20%	16V
C256	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C258	1-126-933-11	ELECT	100µF	20%	16V
C259	1-126-963-11	ELECT	4.7µF	20%	50V
C260	1-126-933-11	ELECT	100µF	20%	16V
C261	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C262	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C263	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C264	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C265	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C266	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C267	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C268	1-126-933-11	ELECT	100µF	20%	16V
C271	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C272	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C274	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C275	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C276	1-164-227-11	CERAMIC CHIP	0.022µF	10%	25V
C277	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C278	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C280	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C281	1-126-933-11	ELECT	100µF	20%	16V
C282	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C284	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C285	1-126-933-11	ELECT	100µF	20%	16V
C286	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C287	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C288	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C290	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C291	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C292	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C293	1-126-933-11	ELECT	100µF	20%	16V
C294	1-126-933-11	ELECT	100µF	20%	16V
C295	1-126-933-11	ELECT	100µF	20%	16V
C296	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C297	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C298	1-126-933-11	ELECT	100µF	20%	16V
C299	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C300	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C301	1-126-964-11	ELECT	10µF	20%	50V
C302	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C303	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C304	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C305	1-126-933-11	ELECT	100µF	20%	16V
C306	1-126-933-11	ELECT	100µF	20%	16V
C307	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C309	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C310	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C311	1-126-963-11	ELECT	4.7µF	20%	50V
C312	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C313	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C314	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C315	1-126-933-11	ELECT	100µF	20%	16V
C317	1-126-933-11	ELECT	100µF	20%	16V
C319	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C320	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C321	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C322	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C323	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C324	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C326	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C327	1-126-933-11	ELECT	100µF	20%	16V
C329	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C330	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C331	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C333	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C334	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C336	1-126-963-11	ELECT	4.7µF	20%	50V
C337	1-126-933-11	ELECT	100µF	20%	16V
C338	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C339	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C340	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C341	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C342	1-126-933-11	ELECT	100µF	20%	16V
C346	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C347	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C348	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C349	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C350	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C351	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C352	1-126-933-11	ELECT	100µF	20%	16V
C353	1-126-933-11	ELECT	100µF	20%	16V
C354	1-162-923-11	CERAMIC CHIP	47pF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C355	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C400	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C401	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C402	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C403	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C404	1-126-933-11	ELECT	100µF	20%	16V
C405	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C406	1-126-933-11	ELECT	100µF	20%	16V
C407	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C408	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C409	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C410	1-126-933-11	ELECT	100µF	20%	16V
C411	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C412	1-126-933-11	ELECT	100µF	20%	16V
C413	1-126-964-11	ELECT	10µF	20%	50V
C414	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C415	1-126-935-11	ELECT	470µF	20%	16V
C416	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C417	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C418	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C419	1-126-964-11	ELECT	10µF	20%	50V
C420	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C421	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C422	1-126-964-11	ELECT	10µF	20%	50V
C423	1-126-964-11	ELECT	10µF	20%	50V
C500	1-162-921-11	CERAMIC CHIP	33pF	5%	50V
C501	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C502	1-126-933-11	ELECT	100µF	20%	16V
C503	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C505	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C506	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C507	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C508	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C509	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C510	1-126-933-11	ELECT	100µF	20%	16V
C511	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C512	1-115-156-11	CERAMIC CHIP	1µF		10V
C513	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C514	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C515	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C517	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C518	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C519	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C520	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C521	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C522	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C523	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C524	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C525	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C526	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C527	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C528	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C529	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C530	1-126-933-11	ELECT	100µF	20%	16V
C531	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C532	1-126-965-91	ELECT	22µF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C533	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C534	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C535	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C536	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C537	1-126-933-11	ELECT	100µF	20%	16V
C538	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C539	1-162-913-11	CERAMIC CHIP	8pF	0.5pF	50V
C540	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C541	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C542	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C543	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C544	1-126-933-11	ELECT	100µF	20%	16V
C546	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C547	1-126-933-11	ELECT	100µF	20%	16V
C548	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C549	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C550	1-162-913-11	CERAMIC CHIP	8pF	0.5pF	50V
C558	1-126-964-11	ELECT	10µF	20%	50V
C559	1-136-177-00	FILM	1µF	5%	50V
C560	1-136-177-00	FILM	1µF	5%	50V
C561	1-126-964-11	ELECT	10µF	20%	50V
C562	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	< CONNECTOR >				
CN001	* 1-793-923-11	CONNECTOR, DIN (PLUG) 64P			
CN002	1-793-173-11	PIN, PC CONNECTOR(PC BOARD)50P			
CN003	* 1-793-922-11	CONNECTOR, DIN (RECEPTACLE) 64P			
CN006	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN007	* 1-764-333-11	PLUG, CONNECTOR 10P			
CN008	1-764-334-11	PLUG, CONNECTOR 11P			
CN009	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN010	* 1-564-507-11	PLUG, CONNECTOR 4P			
	< DIODE >				
D001	8-719-914-43	DIODE DAN202K			
D100	8-719-914-43	DIODE DAN202K			
D201	8-719-914-43	DIODE DAN202K			
D202	8-719-914-44	DIODE DAP202K			
D203	8-719-914-44	DIODE DAP202K			
D204	8-719-914-43	DIODE DAN202K			
	< FERRITEBEAD >				
FB001	1-469-981-21	FERRITE	0µH		
FB200	1-414-229-11	FERRITE	0µH		
FB201	1-414-229-11	FERRITE	0µH		
FB500	1-469-179-21	FERRITE	0µH		
FB501	1-469-179-21	FERRITE	0µH		
FB502	1-414-229-11	FERRITE	0µH		
FB503	1-414-229-11	FERRITE	0µH		
FB504	1-469-835-21	FERRITE	0µH		
FB505	1-469-179-21	FERRITE	0µH		
FB506	1-469-179-21	FERRITE	0µH		

REF.NO.	PART NO.	DESCRIPTION	REMARK
		< FILTER >	
FL200	1-239-848-21	FILTER, LOW PASS	
FL201	1-239-848-21	FILTER, LOW PASS	
FL202	1-239-848-21	FILTER, LOW PASS	
FL500	1-239-848-21	FILTER, LOW PASS	
FL501	1-239-848-21	FILTER, LOW PASS	
FL502	1-239-848-21	FILTER, LOW PASS	
FL503	1-239-848-21	FILTER, LOW PASS	
		< IC >	
IC001	SEE SUPPLEMENT-2		
IC002	8-759-548-56	IC M52055FP	
IC003	8-759-352-91	IC PST9143NL	
IC004	8-759-682-41	IC M24C32-WMN6T(A)	
IC006	8-759-240-87	IC TC74HCT157AF	
IC100	8-752-990-53	IC CXP961064-001Q	
IC101	8-752-990-53	IC CXP961064-001Q	
IC200	8-752-093-84	IC CXA2151Q	
IC201	8-759-548-56	IC M52055FP	
IC202	8-752-089-50	IC CXA2103Q	
IC203	6-700-205-01	IC TC74LVX157FT(EL)	
IC204	8-752-394-69	IC CXD2073Q-T4	
IC205	8-759-548-56	IC M52055FP	
IC206	6-700-205-01	IC TC74LVX157FT(EL)	
IC207	8-752-089-50	IC CXA2103Q	
IC400	8-759-100-96	IC µPC4558G2	
IC401	8-752-080-04	IC CXA2069Q	
IC402	8-759-526-64	IC NJM2521M(TE2)	
IC403	8-759-526-64	IC NJM2521M(TE2)	
IC500	8-759-568-27	IC MSM514265C-60JS	
IC501	8-759-594-44	IC µPD64082GF-3BA	
		< COIL >	
L001	1-469-555-21	INDUCTOR 10µH	
L003	1-469-555-21	INDUCTOR 10µH	
L005	1-469-555-21	INDUCTOR 10µH	
L100	1-469-555-21	INDUCTOR 10µH	
L101	1-469-555-21	INDUCTOR 10µH	
L102	1-469-555-21	INDUCTOR 10µH	
L103	1-469-555-21	INDUCTOR 10µH	
L104	1-469-555-21	INDUCTOR 10µH	
L200	1-469-555-21	INDUCTOR 10µH	
L201	1-469-555-21	INDUCTOR 10µH	
L202	1-469-555-21	INDUCTOR 10µH	
L203	1-469-555-21	INDUCTOR 10µH	
L204	1-469-555-21	INDUCTOR 10µH	
L205	1-469-555-21	INDUCTOR 10µH	
L206	1-469-555-21	INDUCTOR 10µH	
L208	1-469-555-21	INDUCTOR 10µH	
L209	1-469-555-21	INDUCTOR 10µH	
L210	1-469-555-21	INDUCTOR 10µH	
L211	1-469-555-21	INDUCTOR 10µH	
L400	1-469-555-21	INDUCTOR 10µH	
L401	1-469-555-21	INDUCTOR 10µH	
L402	1-469-555-21	INDUCTOR 10µH	
L500	1-469-555-21	INDUCTOR 10µH	
L501	1-469-555-21	INDUCTOR 10µH	
L502	1-469-555-21	INDUCTOR 10µH	
L503	1-469-555-21	INDUCTOR 10µH	
L504	1-469-555-21	INDUCTOR 10µH	
L505	1-469-555-21	INDUCTOR 10µH	
		< TRANSISTOR >	
Q001	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q002	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q003	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q005	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q006	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q009	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q011	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q013	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q100	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q101	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q102	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q103	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q104	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q105	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q106	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q107	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q108	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q200	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q201	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q202	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q203	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q204	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q205	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q208	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q216	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q217	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q218	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q219	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q220	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q221	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q222	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q224	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q227	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q228	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q229	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q230	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q231	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q232	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q235	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q240	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q243	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q248	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q250	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q400	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q401	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q403	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q404	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q405	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q406	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q407	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q409	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q410	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q411	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q412	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q413	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q414	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q415	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q500	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q501	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q502	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q503	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q504	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q505	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q506	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q507	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q508	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q509	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q510	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q511	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q512	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q513	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q514	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q515	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q516	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q517	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q518	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q519	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q520	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q521	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q522	8-729-422-27	TRANSISTOR 2SD601A-Q			
	< RESISTOR >				
R001	1-216-833-11	RES-CHIP	10K	5%	1/16W
R002	1-216-840-11	RES-CHIP	39K	5%	1/16W
R003	1-216-809-11	RES-CHIP	100	5%	1/16W
R004	1-216-817-11	RES-CHIP	470	5%	1/16W
R005	1-216-821-11	RES-CHIP	1K	5%	1/16W
R006	1-216-821-11	RES-CHIP	1K	5%	1/16W
R007	1-216-821-11	RES-CHIP	1K	5%	1/16W
R008	1-216-821-11	RES-CHIP	1K	5%	1/16W
R009	1-216-809-11	RES-CHIP	100	5%	1/16W
R010	1-216-809-11	RES-CHIP	100	5%	1/16W
R011	1-216-809-11	RES-CHIP	100	5%	1/16W
R012	1-216-809-11	RES-CHIP	100	5%	1/16W
R013	1-216-809-11	RES-CHIP	100	5%	1/16W
R014	1-216-809-11	RES-CHIP	100	5%	1/16W
R015	1-216-809-11	RES-CHIP	100	5%	1/16W
R016	1-216-809-11	RES-CHIP	100	5%	1/16W
R017	1-216-809-11	RES-CHIP	100	5%	1/16W
R018	1-216-809-11	RES-CHIP	100	5%	1/16W
R019	1-216-809-11	RES-CHIP	100	5%	1/16W
R020	1-216-809-11	RES-CHIP	100	5%	1/16W
R021	1-216-809-11	RES-CHIP	100	5%	1/16W
R022	1-216-809-11	RES-CHIP	100	5%	1/16W
R023	1-216-809-11	RES-CHIP	100	5%	1/16W
R024	1-216-809-11	RES-CHIP	100	5%	1/16W
R025	1-216-809-11	RES-CHIP	100	5%	1/16W
R028	1-216-809-11	RES-CHIP	100	5%	1/16W
R029	1-216-809-11	RES-CHIP	100	5%	1/16W
R030	1-216-833-11	RES-CHIP	10K	5%	1/16W
R031	1-216-809-11	RES-CHIP	100	5%	1/16W
R032	1-216-833-11	RES-CHIP	10K	5%	1/16W
R033	1-216-809-11	RES-CHIP	100	5%	1/16W
R034	1-216-809-11	RES-CHIP	100	5%	1/16W
R035	1-216-809-11	RES-CHIP	100	5%	1/16W
R036	1-216-809-11	RES-CHIP	100	5%	1/16W
R037	1-216-809-11	RES-CHIP	100	5%	1/16W
R038	1-216-809-11	RES-CHIP	100	5%	1/16W
R039	1-216-809-11	RES-CHIP	100	5%	1/16W
R040	1-216-809-11	RES-CHIP	100	5%	1/16W
R041	1-216-833-11	RES-CHIP	10K	5%	1/16W
R042	1-216-809-11	RES-CHIP	100	5%	1/16W
R043	1-216-809-11	RES-CHIP	100	5%	1/16W
R044	1-216-849-11	RES-CHIP	220K	5%	1/16W
R045	1-216-809-11	RES-CHIP	100	5%	1/16W
R046	1-216-809-11	RES-CHIP	100	5%	1/16W
R047	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R048	1-216-809-11	RES-CHIP	100	5%	1/16W
R051	1-216-833-11	RES-CHIP	10K	5%	1/16W
R053	1-216-833-11	RES-CHIP	10K	5%	1/16W
R054	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R055	1-216-809-11	RES-CHIP	100	5%	1/16W
R059	1-216-809-11	RES-CHIP	100	5%	1/16W
R060	1-216-809-11	RES-CHIP	100	5%	1/16W
R062	1-216-864-11	SHORT	0		
R063	1-216-841-11	RES-CHIP	47K	5%	1/16W
R064	1-216-809-11	RES-CHIP	100	5%	1/16W
R065	1-216-809-11	RES-CHIP	100	5%	1/16W
R066	1-216-809-11	RES-CHIP	100	5%	1/16W
R068	1-216-864-11	SHORT	0		
R069	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R070	1-216-833-11	RES-CHIP	10K	5%	1/16W
R071	1-216-833-11	RES-CHIP	10K	5%	1/16W
R072	1-216-821-11	RES-CHIP	1K	5%	1/16W
R074	1-216-833-11	RES-CHIP	10K	5%	1/16W
R075	1-216-821-11	RES-CHIP	1K	5%	1/16W
R076	1-216-819-11	RES-CHIP	680	5%	1/16W
R077	1-216-821-11	RES-CHIP	1K	5%	1/16W
R078	1-216-821-11	RES-CHIP	1K	5%	1/16W
R079	1-216-809-11	RES-CHIP	100	5%	1/16W
R082	1-216-815-11	RES-CHIP	330	5%	1/16W
R083	1-216-809-11	RES-CHIP	100	5%	1/16W
R084	1-216-809-11	RES-CHIP	100	5%	1/16W
R085	1-216-841-11	RES-CHIP	47K	5%	1/16W
R086	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R087	1-216-805-11	RES-CHIP	47	5%	1/16W
R088	1-216-805-11	RES-CHIP	47	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R089	1-216-805-11	RES-CHIP	47	5%	1/16W	
R090	1-216-813-11	RES-CHIP	220	5%	1/16W	
R091	1-216-813-11	RES-CHIP	220	5%	1/16W	
R092	1-216-813-11	RES-CHIP	220	5%	1/16W	
R098	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R102	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R103	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R104	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R105	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R106	1-216-809-11	RES-CHIP	100	5%	1/16W	
R107	1-216-809-11	RES-CHIP	100	5%	1/16W	
R108	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R109	1-216-813-11	RES-CHIP	220	5%	1/16W	
R110	1-216-813-11	RES-CHIP	220	5%	1/16W	
R111	1-216-813-11	RES-CHIP	220	5%	1/16W	
R112	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W	
R113	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R114	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R115	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R117	1-216-857-11	RES-CHIP	1M	5%	1/16W	
R118	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R119	1-216-824-11	RES-CHIP	1.8K	5%	1/16W	
R120	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R121	1-216-864-11	SHORT	0			
R122	1-216-849-11	RES-CHIP	220K	5%	1/16W	
R123	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R124	1-216-849-11	RES-CHIP	220K	5%	1/16W	
R125	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R126	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R130	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R131	1-216-864-11	SHORT	0			
R132	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R133	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R134	1-216-849-11	RES-CHIP	220K	5%	1/16W	
R135	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R136	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R137	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R138	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R139	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R140	1-216-809-11	RES-CHIP	100	5%	1/16W	
R141	1-216-809-11	RES-CHIP	100	5%	1/16W	
R142	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R143	1-216-813-11	RES-CHIP	220	5%	1/16W	
R144	1-216-813-11	RES-CHIP	220	5%	1/16W	
R145	1-216-813-11	RES-CHIP	220	5%	1/16W	
R146	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W	
R147	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R148	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R149	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R151	1-216-857-11	RES-CHIP	1M	5%	1/16W	
R152	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R153	1-216-824-11	RES-CHIP	1.8K	5%	1/16W	
R154	1-216-864-11	SHORT	0			
R155	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R156	1-216-809-11	RES-CHIP	100	5%	1/16W	
R157	1-216-809-11	RES-CHIP	100	5%	1/16W	
R158	1-216-809-11	RES-CHIP	100	5%	1/16W	
R200	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R201	1-216-809-11	RES-CHIP	100	5%	1/16W	
R202	1-216-809-11	RES-CHIP	100	5%	1/16W	
R203	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R204	1-216-819-11	RES-CHIP	680	5%	1/16W	
R205	1-216-809-11	RES-CHIP	100	5%	1/16W	
R206	1-216-809-11	RES-CHIP	100	5%	1/16W	
R207	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R208	1-216-819-11	RES-CHIP	680	5%	1/16W	
R210	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R211	1-216-809-11	RES-CHIP	100	5%	1/16W	
R212	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R213	1-216-809-11	RES-CHIP	100	5%	1/16W	
R214	1-216-809-11	RES-CHIP	100	5%	1/16W	
R215	1-216-828-11	RES-CHIP	3.9K	5%	1/16W	
R216	1-216-819-11	RES-CHIP	680	5%	1/16W	
R219	1-216-809-11	RES-CHIP	100	5%	1/16W	
R220	1-216-809-11	RES-CHIP	100	5%	1/16W	
R221	1-218-716-11	METAL CHIP	10K	0.5%	1/16W	
R222	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R223	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R224	1-216-809-11	RES-CHIP	100	5%	1/16W	
R225	1-216-819-11	RES-CHIP	680	5%	1/16W	
R226	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R227	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R228	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R231	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R232	1-218-684-11	METAL CHIP	470	0.5%	1/16W	
R233	1-216-809-11	RES-CHIP	100	5%	1/16W	
R234	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R235	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R236	1-216-819-11	RES-CHIP	680	5%	1/16W	
R239	1-216-804-11	RES-CHIP	39	5%	1/16W	
R241	1-216-809-11	RES-CHIP	100	5%	1/16W	
R242	1-216-809-11	RES-CHIP	100	5%	1/16W	
R243	1-216-809-11	RES-CHIP	100	5%	1/16W	
R244	1-216-819-11	RES-CHIP	680	5%	1/16W	
R248	1-216-804-11	RES-CHIP	39	5%	1/16W	
R253	1-216-804-11	RES-CHIP	39	5%	1/16W	
R257	1-216-864-11	SHORT	0			
R258	1-218-686-11	METAL CHIP	560	0.5%	1/16W	
R259	1-218-734-11	METAL CHIP	56K	0.5%	1/16W	
R260	1-216-797-11	RES-CHIP	10	5%	1/16W	
R262	1-216-805-11	RES-CHIP	47	5%	1/16W	
R263	1-216-809-11	RES-CHIP	100	5%	1/16W	
R264	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R266	1-216-809-11	RES-CHIP	100	5%	1/16W	
R268	1-216-809-11	RES-CHIP	100	5%	1/16W	
R270	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R271	1-216-797-11	RES-CHIP	10	5%	1/16W	
R273	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W	
R275	1-216-817-11	RES-CHIP	470	5%	1/16W	
R276	1-216-817-11	RES-CHIP	470	5%	1/16W	
R277	1-216-817-11	RES-CHIP	470	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R278	1-216-817-11	RES-CHIP	470	5%	1/16W
R279	1-216-817-11	RES-CHIP	470	5%	1/16W
R280	1-216-817-11	RES-CHIP	470	5%	1/16W
R281	1-216-797-11	RES-CHIP	10	5%	1/16W
R282	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R283	1-216-837-11	RES-CHIP	22K	5%	1/16W
R284	1-216-813-11	RES-CHIP	220	5%	1/16W
R285	1-216-837-11	RES-CHIP	22K	5%	1/16W
R287	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R288	1-216-817-11	RES-CHIP	470	5%	1/16W
R289	1-216-817-11	RES-CHIP	470	5%	1/16W
R290	1-216-813-11	RES-CHIP	220	5%	1/16W
R291	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R292	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R294	1-216-811-11	RES-CHIP	150	5%	1/16W
R295	1-216-839-11	RES-CHIP	33K	5%	1/16W
R296	1-216-839-11	RES-CHIP	33K	5%	1/16W
R297	1-216-817-11	RES-CHIP	470	5%	1/16W
R298	1-216-812-11	RES-CHIP	180	5%	1/16W
R299	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R300	1-216-811-11	RES-CHIP	150	5%	1/16W
R302	1-216-817-11	RES-CHIP	470	5%	1/16W
R303	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R304	1-216-821-11	RES-CHIP	1K	5%	1/16W
R305	1-216-812-11	RES-CHIP	180	5%	1/16W
R306	1-216-817-11	RES-CHIP	470	5%	1/16W
R307	1-216-817-11	RES-CHIP	470	5%	1/16W
R308	1-216-817-11	RES-CHIP	470	5%	1/16W
R309	1-216-817-11	RES-CHIP	470	5%	1/16W
R310	1-216-821-11	RES-CHIP	1K	5%	1/16W
R311	1-216-821-11	RES-CHIP	1K	5%	1/16W
R312	1-216-817-11	RES-CHIP	470	5%	1/16W
R313	1-216-833-11	RES-CHIP	10K	5%	1/16W
R314	1-216-809-11	RES-CHIP	100	5%	1/16W
R315	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R316	1-216-833-11	RES-CHIP	10K	5%	1/16W
R317	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R318	1-216-807-11	RES-CHIP	68	5%	1/16W
R319	1-216-821-11	RES-CHIP	1K	5%	1/16W
R320	1-216-837-11	RES-CHIP	22K	5%	1/16W
R321	1-216-841-11	RES-CHIP	47K	5%	1/16W
R322	1-216-821-11	RES-CHIP	1K	5%	1/16W
R323	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R324	1-216-809-11	RES-CHIP	100	5%	1/16W
R325	1-216-833-11	RES-CHIP	10K	5%	1/16W
R326	1-216-837-11	RES-CHIP	22K	5%	1/16W
R327	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R328	1-216-809-11	RES-CHIP	100	5%	1/16W
R329	1-216-837-11	RES-CHIP	22K	5%	1/16W
R330	1-216-805-11	RES-CHIP	47	5%	1/16W
R331	1-216-807-11	RES-CHIP	68	5%	1/16W
R332	1-216-819-11	RES-CHIP	680	5%	1/16W
R333	1-216-809-11	RES-CHIP	100	5%	1/16W
R334	1-216-809-11	RES-CHIP	100	5%	1/16W
R339	1-216-809-11	RES-CHIP	100	5%	1/16W
R340	1-216-819-11	RES-CHIP	680	5%	1/16W
R346	1-216-837-11	RES-CHIP	22K	5%	1/16W
R351	1-216-835-11	RES-CHIP	15K	5%	1/16W
R352	1-216-809-11	RES-CHIP	100	5%	1/16W
R353	1-216-837-11	RES-CHIP	22K	5%	1/16W
R355	1-216-819-11	RES-CHIP	680	5%	1/16W
R359	1-216-809-11	RES-CHIP	100	5%	1/16W
R360	1-216-819-11	RES-CHIP	680	5%	1/16W
R368	1-216-837-11	RES-CHIP	22K	5%	1/16W
R371	1-216-809-11	RES-CHIP	100	5%	1/16W
R372	1-216-837-11	RES-CHIP	22K	5%	1/16W
R373	1-216-819-11	RES-CHIP	680	5%	1/16W
R375	1-216-809-11	RES-CHIP	100	5%	1/16W
R376	1-216-819-11	RES-CHIP	680	5%	1/16W
R377	1-216-817-11	RES-CHIP	470	5%	1/16W
R378	1-216-817-11	RES-CHIP	470	5%	1/16W
R379	1-216-817-11	RES-CHIP	470	5%	1/16W
R400	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R401	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R402	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R403	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R404	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R405	1-216-809-11	RES-CHIP	100	5%	1/16W
R406	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R407	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R408	1-216-809-11	RES-CHIP	100	5%	1/16W
R409	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R410	1-216-809-11	RES-CHIP	100	5%	1/16W
R411	1-216-809-11	RES-CHIP	100	5%	1/16W
R412	1-216-809-11	RES-CHIP	100	5%	1/16W
R413	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R414	1-216-809-11	RES-CHIP	100	5%	1/16W
R415	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R416	1-216-809-11	RES-CHIP	100	5%	1/16W
R417	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R418	1-216-809-11	RES-CHIP	100	5%	1/16W
R419	1-216-809-11	RES-CHIP	100	5%	1/16W
R420	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R421	1-216-845-11	RES-CHIP	100K	5%	1/16W
R422	1-216-809-11	RES-CHIP	100	5%	1/16W
R423	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R424	1-216-809-11	RES-CHIP	100	5%	1/16W
R425	1-216-809-11	RES-CHIP	100	5%	1/16W
R427	1-216-845-11	RES-CHIP	100K	5%	1/16W
R428	1-216-848-11	RES-CHIP	180K	5%	1/16W
R429	1-216-821-11	RES-CHIP	1K	5%	1/16W
R430	1-216-809-11	RES-CHIP	100	5%	1/16W
R432	1-216-809-11	RES-CHIP	100	5%	1/16W
R433	1-216-833-11	RES-CHIP	10K	5%	1/16W
R434	1-216-805-11	RES-CHIP	47	5%	1/16W
R437	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R438	1-216-809-11	RES-CHIP	100	5%	1/16W
R439	1-216-821-11	RES-CHIP	1K	5%	1/16W
R440	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R441	1-216-813-11	RES-CHIP	220	5%	1/16W
R443	1-216-809-11	RES-CHIP	100	5%	1/16W
R444	1-216-813-11	RES-CHIP	220	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R445	1-216-809-11	RES-CHIP	100	5%	1/16W
R446	1-216-853-11	RES-CHIP	470K	5%	1/16W
R447	1-216-817-11	RES-CHIP	470	5%	1/16W
R448	1-216-842-11	RES-CHIP	56K	5%	1/16W
R449	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R450	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R451	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R452	1-216-821-11	RES-CHIP	1K	5%	1/16W
R453	1-216-809-11	RES-CHIP	100	5%	1/16W
R454	1-216-809-11	RES-CHIP	100	5%	1/16W
R455	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R456	1-216-809-11	RES-CHIP	100	5%	1/16W
R457	1-216-830-11	RES-CHIP	5.6K	5%	1/16W
R458	1-216-809-11	RES-CHIP	100	5%	1/16W
R459	1-216-809-11	RES-CHIP	100	5%	1/16W
R460	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R461	1-216-857-11	RES-CHIP	1M	5%	1/16W
R463	1-216-806-11	RES-CHIP	56	5%	1/16W
R464	1-216-853-11	RES-CHIP	470K	5%	1/16W
R465	1-216-821-11	RES-CHIP	1K	5%	1/16W
R466	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R468	1-216-817-11	RES-CHIP	470	5%	1/16W
R469	1-216-853-11	RES-CHIP	470K	5%	1/16W
R470	1-216-821-11	RES-CHIP	1K	5%	1/16W
R471	1-216-841-11	RES-CHIP	47K	5%	1/16W
R473	1-216-821-11	RES-CHIP	1K	5%	1/16W
R474	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R475	1-216-817-11	RES-CHIP	470	5%	1/16W
R476	1-216-833-11	RES-CHIP	10K	5%	1/16W
R477	1-216-845-11	RES-CHIP	100K	5%	1/16W
R478	1-216-833-11	RES-CHIP	10K	5%	1/16W
R479	1-216-821-11	RES-CHIP	1K	5%	1/16W
R480	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R481	1-216-821-11	RES-CHIP	1K	5%	1/16W
R482	1-216-813-11	RES-CHIP	220	5%	1/16W
R483	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R484	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R485	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R486	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R504	1-216-821-11	RES-CHIP	1K	5%	1/16W
R505	1-216-809-11	RES-CHIP	100	5%	1/16W
R506	1-216-813-11	RES-CHIP	220	5%	1/16W
R507	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R508	1-216-821-11	RES-CHIP	1K	5%	1/16W
R509	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R510	1-216-813-11	RES-CHIP	220	5%	1/16W
R511	1-216-833-11	RES-CHIP	10K	5%	1/16W
R512	1-216-837-11	RES-CHIP	22K	5%	1/16W
R514	1-216-837-11	RES-CHIP	22K	5%	1/16W
R515	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R516	1-216-837-11	RES-CHIP	22K	5%	1/16W
R517	1-216-853-11	RES-CHIP	470K	5%	1/16W
R518	1-216-837-11	RES-CHIP	22K	5%	1/16W
R520	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R521	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R522	1-216-809-11	RES-CHIP	100	5%	1/16W
R523	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R524	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R525	1-216-821-11	RES-CHIP	1K	5%	1/16W
R526	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R527	1-216-821-11	RES-CHIP	1K	5%	1/16W
R528	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R529	1-216-821-11	RES-CHIP	1K	5%	1/16W
R530	1-216-839-11	RES-CHIP	33K	5%	1/16W
R531	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R532	1-216-817-11	RES-CHIP	470	5%	1/16W
R533	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R534	1-216-819-11	RES-CHIP	680	5%	1/16W
R535	1-218-690-11	METAL CHIP	820	0.5%	1/16W
R536	1-216-834-11	RES-CHIP	12K	5%	1/16W
R537	1-216-821-11	RES-CHIP	1K	5%	1/16W
R538	1-216-817-11	RES-CHIP	470	5%	1/16W
R542	1-216-821-11	RES-CHIP	1K	5%	1/16W
R543	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R544	1-216-821-11	RES-CHIP	1K	5%	1/16W
R545	1-216-839-11	RES-CHIP	33K	5%	1/16W
R546	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R547	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R548	1-216-819-11	RES-CHIP	680	5%	1/16W
R549	1-218-690-11	METAL CHIP	820	0.5%	1/16W
R550	1-216-834-11	RES-CHIP	12K	5%	1/16W
R551	1-216-821-11	RES-CHIP	1K	5%	1/16W
R555	1-216-805-11	RES-CHIP	47	5%	1/16W
R556	1-216-805-11	RES-CHIP	47	5%	1/16W
R557	1-216-805-11	RES-CHIP	47	5%	1/16W
R558	1-216-833-11	RES-CHIP	10K	5%	1/16W
R559	1-216-833-11	RES-CHIP	10K	5%	1/16W
R560	1-216-833-11	RES-CHIP	10K	5%	1/16W
R561	1-216-833-11	RES-CHIP	10K	5%	1/16W
R562	1-216-841-11	RES-CHIP	47K	5%	1/16W
R563	1-216-841-11	RES-CHIP	47K	5%	1/16W
R564	1-216-841-11	RES-CHIP	47K	5%	1/16W
R565	1-216-841-11	RES-CHIP	47K	5%	1/16W
R566	1-216-841-11	RES-CHIP	47K	5%	1/16W
R567	1-216-841-11	RES-CHIP	47K	5%	1/16W
R568	1-216-833-11	RES-CHIP	10K	5%	1/16W
R569	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R570	1-218-742-11	METAL CHIP	120K	0.5%	1/16W
R571	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R572	1-218-742-11	METAL CHIP	120K	0.5%	1/16W
R574	1-216-809-11	RES-CHIP	100	5%	1/16W
R575	1-216-821-11	RES-CHIP	1K	5%	1/16W
R576	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R577	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R578	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R579	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R580	1-216-813-11	RES-CHIP	220	5%	1/16W
R581	1-216-809-11	RES-CHIP	100	5%	1/16W
R582	1-216-817-11	RES-CHIP	470	5%	1/16W
R583	1-216-833-11	RES-CHIP	10K	5%	1/16W
R584	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R585	1-216-825-11	RES-CHIP	2.2K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R586	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R587	1-216-864-11	SHORT	0		
R588	1-216-864-11	SHORT	0		
R589	1-216-809-11	RES-CHIP	100	5%	1/16W
R590	1-216-821-11	RES-CHIP	1K	5%	1/16W
R591	1-216-821-11	RES-CHIP	1K	5%	1/16W
R592	1-216-821-11	RES-CHIP	1K	5%	1/16W
R593	1-216-864-11	SHORT	0		
R594	1-216-817-11	RES-CHIP	470	5%	1/16W
R595	1-216-817-11	RES-CHIP	470	5%	1/16W
R596	1-216-821-11	RES-CHIP	1K	5%	1/16W

< NETWORK RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
RB500	1-233-411-21	RES, CHIP NETWORK		220	
RB501	1-233-411-21	RES, CHIP NETWORK		220	
RB502	1-233-411-21	RES, CHIP NETWORK		220	
RB503	1-233-411-21	RES, CHIP NETWORK		220	
RB504	1-233-411-21	RES, CHIP NETWORK		220	
RB505	1-233-411-21	RES, CHIP NETWORK		220	
RB506	1-233-411-21	RES, CHIP NETWORK		220	

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION			REMARK
X001	1-781-931-21	VIBRATOR, CRYSTAL (10MHz)			
X003	1-795-371-21	VIBRATOR, CERAMIC (25MHz)			
X100	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			
X101	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			
X200	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			
X201	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)			
X202	1-567-505-11	OSCILLATOR, CRYSTAL (3.58MHz)			

****

* A-1299-523-A AD BOARD, COMPLETE
****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1601	1-126-933-11	ELECT	100µF	20%	16V
C1604	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1605	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1606	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1607	1-126-933-11	ELECT	100µF	20%	16V
C1608	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1609	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1610	1-162-962-11	CERAMIC CHIP	470pF	10%	50V
C1611	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1612	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1613	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1614	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1615	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1616	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1617	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1618	1-126-933-11	ELECT	100µF	20%	16V
C1619	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1620	1-162-920-11	CERAMIC CHIP	27pF	5%	50V
C1621	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1622	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C1623	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C1624	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C1625	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1626	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1627	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1628	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1629	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1630	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1631	1-126-933-11	ELECT	100µF	20%	16V
C1632	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1633	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1634	1-126-963-11	ELECT	4.7µF	20%	50V
C1635	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C1636	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1637	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1638	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C1639	1-126-933-11	ELECT	100µF	20%	16V
C1640	1-126-933-11	ELECT	100µF	20%	16V
C1641	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1643	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1644	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1645	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1646	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1647	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1649	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1651	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1652	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1656	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1657	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1658	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1659	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1661	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1663	1-126-933-11	ELECT	100µF	20%	16V
C1664	1-126-933-11	ELECT	100µF	20%	16V
C1665	1-126-933-11	ELECT	100µF	20%	16V
C1666	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1668	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1669	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1670	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1671	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1672	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1673	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1674	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1675	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1676	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1677	1-126-933-11	ELECT	100µF	20%	16V
C1678	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1680	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1681	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1682	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1683	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1684	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1685	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1688	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1690	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1691	1-126-933-11	ELECT	100µF	20%	16V
C1692	1-126-933-11	ELECT	100µF	20%	16V
C1693	1-126-933-11	ELECT	100µF	20%	16V
C1694	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1695	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1696	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1697	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1698	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1699	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1700	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1701	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C1704	1-126-933-11	ELECT	100µF	20%	16V
C1707	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1708	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1709	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C1711	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C1712	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1714	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1715	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1717	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1718	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C1720	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1721	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C1722	1-162-910-11	CERAMIC CHIP	5pF	0.25pF	50V
C1730	1-126-916-11	ELECT	1000µF	20%	6.3V
C1731	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1732	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1733	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C1734	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN1601	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P
CN1602	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D1601	8-719-988-61	DIODE 1SS355TE-17
D1603	8-719-988-61	DIODE 1SS355TE-17
D1604	8-719-069-54	DIODE UDZSTE-175.1B
D1605	8-719-069-54	DIODE UDZSTE-175.1B
D1606	8-719-069-54	DIODE UDZSTE-175.1B
D1607	8-719-069-54	DIODE UDZSTE-175.1B

< FERRITEBEAD >

REF.NO.	PART NO.	DESCRIPTION	
FB1601	1-414-445-11	FERRITE	0µH
FB1602	1-414-445-11	FERRITE	0µH
FB1603	1-414-445-11	FERRITE	0µH
FB1604	1-414-445-11	FERRITE	0µH
FB1605	1-414-445-11	FERRITE	0µH
FB1606	1-414-445-11	FERRITE	0µH
FB1607	1-414-445-11	FERRITE	0µH
FB1608	1-414-445-11	FERRITE	0µH
FB1609	1-414-445-11	FERRITE	0µH
FB1610	1-414-445-11	FERRITE	0µH
FB1611	1-414-445-11	FERRITE	0µH
FB1612	1-414-445-11	FERRITE	0µH
FB1613	1-414-445-11	FERRITE	0µH
FB1614	1-414-445-11	FERRITE	0µH
FB1615	1-414-445-11	FERRITE	0µH
FB1616	1-414-445-11	FERRITE	0µH
FB1617	1-414-445-11	FERRITE	0µH

< IC >

REF.NO.	PART NO.	DESCRIPTION
IC1601	8-759-683-55	IC CM0017AF
IC1602	8-759-830-08	IC NJM2068V-TE2
IC1603	8-759-830-08	IC NJM2068V-TE2
IC1605	8-759-352-91	IC PST9143NL
IC1606	8-752-925-71	IC CXP86448-635Q
IC1607	8-759-682-41	IC M24C32-WMN6T(A)
IC1608	8-759-829-87	IC CD0031AM
IC1609	8-759-830-08	IC NJM2068V-TE2
IC1610	8-759-830-08	IC NJM2068V-TE2
IC1611	8-759-830-08	IC NJM2068V-TE2
IC1612	8-759-830-08	IC NJM2068V-TE2

< COIL >

REF.NO.	PART NO.	DESCRIPTION	
L1601	1-469-555-21	INDUCTOR	10µH
L1602	1-469-555-21	INDUCTOR	10µH

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION
Q1603	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q1604	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q1605	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q1606	8-729-120-28	TRANSISTOR 2SC1623-L5L6

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1601	1-216-841-11	RES-CHIP	47K	5%	1/16W
R1604	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1605	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1606	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1607	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1608	1-216-809-11	RES-CHIP	100	5%	1/16W
R1609	1-216-809-11	RES-CHIP	100	5%	1/16W
R1611	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1614	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1615	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1618	1-216-809-11	RES-CHIP	100	5%	1/16W
R1619	1-216-864-11	SHORT	0		
R1620	1-216-809-11	RES-CHIP	100	5%	1/16W
R1621	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1622	1-216-817-11	RES-CHIP	470	5%	1/16W
R1623	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1625	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1627	1-216-821-11	RES-CHIP	1K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1634	1-216-809-11	RES-CHIP	100	5%	1/16W
R1635	1-216-809-11	RES-CHIP	100	5%	1/16W
R1636	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1637	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1638	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1639	1-216-809-11	RES-CHIP	100	5%	1/16W
R1640	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1641	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1642	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1643	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1644	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1645	1-216-815-11	RES-CHIP	330	5%	1/16W
R1646	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R1647	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1648	1-216-809-11	RES-CHIP	100	5%	1/16W
R1649	1-216-809-11	RES-CHIP	100	5%	1/16W
R1650	1-216-815-11	RES-CHIP	330	5%	1/16W
R1651	1-216-815-11	RES-CHIP	330	5%	1/16W
R1652	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1653	1-216-817-11	RES-CHIP	470	5%	1/16W
R1654	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R1655	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R1656	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1657	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1658	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1659	1-216-837-11	RES-CHIP	22K	5%	1/16W
R1660	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1661	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1662	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R1663	1-216-818-11	RES-CHIP	560	5%	1/16W
R1665	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1666	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1667	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1668	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1669	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1670	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1671	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1672	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1673	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1674	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1675	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1676	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1681	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1682	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1683	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1684	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1685	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1690	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1691	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1692	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1693	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1694	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1695	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1696	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1697	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1698	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1699	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1700	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1701	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R1702	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1703	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1704	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1705	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1706	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R1707	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1708	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1709	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1710	1-216-864-11	SHORT	0		
R1711	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1712	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1713	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1714	1-216-833-11	RES-CHIP	10K	5%	1/16W

< NETWORK RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
RB1603	1-233-576-11	RES, CHIP NETWORK	100
RB1604	1-233-576-11	RES, CHIP NETWORK	100
RB1605	1-233-576-11	RES, CHIP NETWORK	100

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X1601	1-767-925-21	VIBRATOR, CRYSTAL (12MHz)

****

* A-1299-611-A A BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)
* 7-651-000-50 GREASE,SILICON (G-746) 200G

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3001	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3002	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C3003	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3004	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3005	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3006	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C3007	1-164-392-11	CERAMIC CHIP	390pF	5%	50V
C3008	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3013	1-126-933-11	ELECT	100µF	20%	16V
C3014	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3015	1-126-933-11	ELECT	100µF	20%	16V
C3016	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3017	1-110-563-11	CERAMIC CHIP	0.068µF	10%	16V
C3018	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3019	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C3020	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3021	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3022	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3023	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3024	1-164-156-11	CERAMIC CHIP	0.1µF		25V

A

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3025	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3026	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3027	1-126-933-11	ELECT	100µF	20%	16V
C3028	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3029	1-126-933-11	ELECT	100µF	20%	16V
C3030	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3031	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3032	1-126-963-11	ELECT	4.7µF	20%	50V
C3033	1-126-933-11	ELECT	100µF	20%	16V
C3034	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3035	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3036	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3037	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C3038	1-126-933-11	ELECT	100µF	20%	16V
C3039	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C3040	1-126-933-11	ELECT	100µF	20%	16V
C3041	1-126-933-11	ELECT	100µF	20%	16V
C3042	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3044	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3045	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3046	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3047	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3048	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3049	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3050	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3051	1-126-933-11	ELECT	100µF	20%	16V
C3052	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3053	1-130-495-00	MYLAR	0.1µF	5%	50V
C3054	1-136-244-11	FILM	0.1µF	5%	50V
C3055	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3056	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3057	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3059	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3062	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3063	1-162-928-11	CERAMIC CHIP	120pF	5%	50V
C3064	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3066	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3068	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3069	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3071	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3072	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3073	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C3075	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3076	1-126-933-11	ELECT	100µF	20%	16V
C3077	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3078	1-126-933-11	ELECT	100µF	20%	16V
C3080	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3081	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3082	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3083	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3084	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3085	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3086	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3087	1-164-218-11	CERAMIC CHIP	180pF	5%	50V
C3089	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3090	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3091	1-126-933-11	ELECT	100µF	20%	16V
C3092	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3093	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3094	1-104-665-11	ELECT	100µF	20%	25V
C3095	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3096	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3097	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3098	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3100	1-126-933-11	ELECT	100µF	20%	16V
C3101	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3102	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3103	1-126-933-11	ELECT	100µF	20%	16V
C3104	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C3105	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3106	1-126-933-11	ELECT	100µF	20%	16V
C3107	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3108	1-164-816-11	CERAMIC CHIP	220pF	2%	50V
C3109	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3110	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3111	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3112	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3113	1-126-933-11	ELECT	100µF	20%	16V
C3114	1-126-965-91	ELECT	22µF	20%	50V
C3115	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C3116	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C3117	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C3118	1-126-933-11	ELECT	100µF	20%	16V
C3119	1-164-816-11	CERAMIC CHIP	220pF	2%	50V
C3120	1-126-933-11	ELECT	100µF	20%	16V
C3121	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3122	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3123	1-126-933-11	ELECT	100µF	20%	16V
C3124	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3125	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3126	1-126-964-11	ELECT	10µF	20%	50V
C3127	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3128	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3130	1-126-964-11	ELECT	10µF	20%	50V
C3131	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3132	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3133	1-126-933-11	ELECT	100µF	20%	16V
C3145	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3146	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3147	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3148	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3149	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3150	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3155	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3156	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3157	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C3158	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3160	1-162-913-11	CERAMIC CHIP	8pF	0.5pF	50V
C3161	1-162-913-11	CERAMIC CHIP	8pF	0.5pF	50V
C3163	1-126-934-11	ELECT	220µF	20%	16V
C3164	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3166	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C3167	1-126-933-11	ELECT 100µF 20% 16V	
C3172	1-164-156-11	CERAMIC CHIP 0.1µF 25V	
C3173	1-164-156-11	CERAMIC CHIP 0.1µF 25V	
C3174	1-164-156-11	CERAMIC CHIP 0.1µF 25V	
C3175	1-164-156-11	CERAMIC CHIP 0.1µF 25V	
C3176	1-164-156-11	CERAMIC CHIP 0.1µF 25V	
C3182	1-107-826-11	CERAMIC CHIP 0.1µF 10% 16V	
C3183	1-164-816-11	CERAMIC CHIP 220pF 2% 50V	
C3184	1-164-816-11	CERAMIC CHIP 220pF 2% 50V	
C3185	1-162-923-11	CERAMIC CHIP 47pF 5% 50V	
C3186	1-126-933-11	ELECT 100µF 20% 16V	
	< CONNECTOR >		
CN3001 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN3005 *	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3006 *	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3007 *	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3008 *	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN3009	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
CN3010 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN3011 *	1-564-512-11	PLUG, CONNECTOR 9P	
CN3012	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN3013	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN3014 *	1-764-333-11	PLUG, CONNECTOR 10P	
CN3015 *	1-564-511-11	PLUG, CONNECTOR 8P	
CN3016 *	1-564-512-11	PLUG, CONNECTOR 9P	
CN3017 *	1-564-510-11	PLUG, CONNECTOR 7P	
CN3018 *	1-564-506-11	PLUG, CONNECTOR 3P	
CN3019 *	1-564-509-11	PLUG, CONNECTOR 6P	
CN3020 *	1-793-922-11	CONNECTOR, DIN (RECEPTACLE) 64P	
CN3021	1-695-915-11	TAB (CONTACT)	
CN3022	1-793-174-11	SOCKET,PC CONNECTOR (PC BOARD)	
CN3023 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN3024 *	1-564-511-11	PLUG, CONNECTOR 8P	
	< DIODE >		
D3001	8-719-083-87	DIODE UDZS-TE17-33B	
D3002	8-719-056-85	DIODE UDZ-TE-17- 8.2B	
D3003	8-719-404-50	DIODE MA111-TX	
D3004	8-719-069-54	DIODE UDZSTE-175.1B	
D3009	8-719-404-50	DIODE MA111-TX	
D3011	8-719-404-50	DIODE MA111-TX	
D3012	8-719-404-50	DIODE MA111-TX	
D3013	8-719-404-50	DIODE MA111-TX	
D3014	8-719-069-55	DIODE UDZSTE-175.6B	
D3015	8-719-069-55	DIODE UDZSTE-175.6B	
D3016	8-719-069-55	DIODE UDZSTE-175.6B	
D3023	8-719-404-50	DIODE MA111-TX	
D3026	8-719-404-50	DIODE MA111-TX	
D3027	8-719-991-33	DIODE 1SS133T-77	
	< IC >		
IC3001	8-759-830-08	IC NJM2068V-TE2	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC3002	8-759-833-71	IC NJM2395F09	
IC3003	8-759-833-12	IC NJM2395AF05	
IC3004	8-759-830-08	IC NJM2068V-TE2	
IC3005	8-759-198-03	IC PQ09RF21	
IC3006	8-752-100-25	IC CXA2150AQ	
IC3007	8-759-833-12	IC NJM2395AF05	
IC3008	8-759-641-26	IC NJM2391DL1-33(TE1)	
IC3009	8-759-700-65	IC NJM79L05A	
IC3010	8-752-068-37	IC CXA1726AM	
IC3011	8-759-830-08	IC NJM2068V-TE2	
IC3012	8-759-830-08	IC NJM2068V-TE2	
IC3013	6-700-150-01	IC M24C04-WMN6T(A)	
IC3014	8-759-701-79	IC NJM7812FA	
IC3018	8-759-278-58	IC NJM4558V-TE2	
IC3020	8-759-278-58	IC NJM4558V-TE2	
IC3021	8-759-701-75	IC NJM7805FA	
IC3022	8-759-278-58	IC NJM4558V-TE2	
IC3023	8-759-278-58	IC NJM4558V-TE2	
IC3024	8-759-687-05	IC MAX4450EUK-TG069	
	< COIL >		
L3001	1-414-856-11	INDUCTOR 10µH	
L3002	1-414-856-11	INDUCTOR 10µH	
L3004	1-414-856-11	INDUCTOR 10µH	
L3005	1-414-856-11	INDUCTOR 10µH	
L3006	1-414-856-11	INDUCTOR 10µH	
L3007	1-414-856-11	INDUCTOR 10µH	
L3008	1-414-856-11	INDUCTOR 10µH	
L3009	1-414-856-11	INDUCTOR 10µH	
L3010	1-414-856-11	INDUCTOR 10µH	
L3011	1-414-856-11	INDUCTOR 10µH	
	< NEON LAMP >		
NL3001	1-517-778-21	LAMP, NEON	
NL3002	1-517-778-21	LAMP, NEON	
NL3003	1-517-778-21	LAMP, NEON	
	< TRANSISTOR >		
Q3001	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3002	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3020	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3021	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3022	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3033	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3037	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3038	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3039	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3040	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3041	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3042	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3046	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3047	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3048	8-729-122-63	TRANSISTOR 2SA1226	
Q3049	8-729-122-63	TRANSISTOR 2SA1226	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q3050	8-729-122-63	TRANSISTOR 2SA1226	
Q3051	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3052	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3053	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3054	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3055	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3056	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3058	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3059	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3060	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3061	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3062	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3063	8-729-422-27	TRANSISTOR 2SD601A-Q	
	< RESISTOR >		
R3001	1-216-849-11	RES-CHIP 220K 5% 1/16W	
R3002	1-218-722-11	METAL CHIP 18K 0.5% 1/16W	
R3003	1-218-720-11	METAL CHIP 15K 0.5% 1/16W	
R3004	1-218-740-11	METAL CHIP 100K 0.5% 1/16W	
R3005	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3006	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3007	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3008	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3009	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3010	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3011	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3012	1-216-813-11	RES-CHIP 220 5% 1/16W	
R3013	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3014	1-216-832-11	RES-CHIP 8.2K 5% 1/16W	
R3017	1-216-825-11	RES-CHIP 2.2K 5% 1/16W	
R3018	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3019	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3020	1-216-841-11	RES-CHIP 47K 5% 1/16W	
R3022	1-218-702-11	METAL CHIP 2.7K 0.5% 1/16W	
R3024	1-218-714-11	METAL CHIP 8.2K 0.5% 1/16W	
R3025	1-218-706-11	METAL CHIP 3.9K 0.5% 1/16W	
R3026	1-216-839-11	RES-CHIP 33K 5% 1/16W	
R3027	1-216-827-11	RES-CHIP 3.3K 5% 1/16W	
R3028	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3033	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3034	1-216-804-11	RES-CHIP 39 5% 1/16W	
R3035	1-249-413-11	CARBON 470 5% 1/4W	
R3037	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3042	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3045	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3047	1-216-804-11	RES-CHIP 39 5% 1/16W	
R3048	1-249-413-11	CARBON 470 5% 1/4W	
R3052	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3053	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3054	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3055	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3056	1-216-804-11	RES-CHIP 39 5% 1/16W	
R3057	1-249-413-11	CARBON 470 5% 1/4W	
R3059	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3063	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3064	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3066	1-216-827-11	RES-CHIP 3.3K 5% 1/16W	
R3067	1-216-815-11	RES-CHIP 330 5% 1/16W	
R3068	1-216-825-11	RES-CHIP 2.2K 5% 1/16W	
R3069	1-216-824-11	RES-CHIP 1.8K 5% 1/16W	
R3070	1-216-824-11	RES-CHIP 1.8K 5% 1/16W	
R3071	1-216-824-11	RES-CHIP 1.8K 5% 1/16W	
R3072	1-249-377-11	CARBON 0.47 5% 1/4W	
R3073	1-216-369-00	METAL OXIDE 1 5% 2W	
R3075	1-216-371-00	METAL OXIDE 1.5 5% 2W	
R3077	1-249-377-11	CARBON 0.47 5% 1/4W	
R3082	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3086	1-216-826-11	RES-CHIP 2.7K 5% 1/16W	
R3087	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3091	1-249-417-11	CARBON 1K 5% 1/4W	
R3092	1-249-429-11	CARBON 10K 5% 1/4W	
R3095	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3097	1-216-365-00	METAL OXIDE 0.47 5% 2W	
R3098	1-216-349-00	METAL OXIDE 1 5% 1W	
R3100	1-216-821-11	RES-CHIP 1K 5% 1/16W	
R3101	1-218-708-11	METAL CHIP 4.7K 0.5% 1/16W	
R3102	1-218-708-11	METAL CHIP 4.7K 0.5% 1/16W	
R3103	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3106	1-216-863-11	RES-CHIP 3.3M 5% 1/16W	
R3107	1-216-831-11	RES-CHIP 6.8K 5% 1/16W	
R3108	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3109	1-216-427-00	METAL OXIDE 120 5% 1W	
R3110	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3112	1-216-864-11	SHORT 0	
R3113	1-216-864-11	SHORT 0	
R3115	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3116	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3118	1-218-708-11	METAL CHIP 4.7K 0.5% 1/16W	
R3120	1-216-823-11	RES-CHIP 1.5K 5% 1/16W	
R3121	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3122	1-216-817-11	RES-CHIP 470 5% 1/16W	
R3123	1-216-836-11	RES-CHIP 18K 5% 1/16W	
R3126	1-216-831-11	RES-CHIP 6.8K 5% 1/16W	
R3129	1-216-835-11	RES-CHIP 15K 5% 1/16W	
R3130	1-216-821-11	RES-CHIP 1K 5% 1/16W	
R3131	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3132	1-216-809-11	RES-CHIP 100 5% 1/16W	
R3133	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3134	1-216-831-11	RES-CHIP 6.8K 5% 1/16W	
R3136	1-218-716-11	METAL CHIP 10K 0.5% 1/16W	
R3137	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3139	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3140	1-216-821-11	RES-CHIP 1K 5% 1/16W	
R3141	1-216-833-11	RES-CHIP 10K 5% 1/16W	
R3143	1-216-823-11	RES-CHIP 1.5K 5% 1/16W	
R3144	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3145	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3147	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R3149	1-216-835-11	RES-CHIP 15K 5% 1/16W	
R3150	1-216-864-11	SHORT 0	
R3151	1-216-833-11	RES-CHIP 10K 5% 1/16W	

A

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3152	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3153	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3154	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R3155	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3156	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3157	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R3158	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3159	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3161	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3162	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R3163	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R3164	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R3165	1-216-809-11	RES-CHIP	100	5%	1/16W
R3166	1-216-809-11	RES-CHIP	100	5%	1/16W
R3167	1-216-864-11	SHORT	0		
R3170	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3171	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3172	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3173	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3174	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3175	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R3176	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R3177	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3178	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3179	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3180	1-216-809-11	RES-CHIP	100	5%	1/16W
R3181	1-216-809-11	RES-CHIP	100	5%	1/16W
R3182	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R3183	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R3184	1-216-809-11	RES-CHIP	100	5%	1/16W
R3185	1-216-809-11	RES-CHIP	100	5%	1/16W
R3186	1-216-864-11	SHORT	0		
R3187	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3188	1-216-864-11	SHORT	0		
R3203	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3204	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3205	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3208	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3209	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3212	1-215-900-11	METAL OXIDE	22K	5%	2W
R3222	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3223	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3224	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3225	1-216-809-11	RES-CHIP	100	5%	1/16W
R3226	1-216-809-11	RES-CHIP	100	5%	1/16W
R3227	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3228	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R3229	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R3230	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R3231	1-216-805-11	RES-CHIP	47	5%	1/16W
R3232	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3233	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3234	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3235	1-216-846-11	RES-CHIP	120K	5%	1/16W
R3236	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3237	1-216-845-11	RES-CHIP	100K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3238	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3239	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3240	1-216-864-11	SHORT	0		
R3243	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3244	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3245	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R3246	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R3250	1-216-864-11	SHORT	0		
R3253	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3254	1-216-813-11	RES-CHIP	220	5%	1/16W
R3255	1-216-809-11	RES-CHIP	100	5%	1/16W
R3256	1-216-817-11	RES-CHIP	470	5%	1/16W
R3257	1-216-817-11	RES-CHIP	470	5%	1/16W
R3266	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R3267	1-216-809-11	RES-CHIP	100	5%	1/16W
R3268	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3269	1-216-840-11	RES-CHIP	39K	5%	1/16W
R3270	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W
R3271	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3272	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W
R3273	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3274	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3275	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3276	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R3277	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W
R3278	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R3280	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3281	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3282	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3283	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3284	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3285	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R3286	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3287	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3288	1-216-839-11	RES-CHIP	33K	5%	1/16W
R3289	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3290	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3291	1-216-833-11	RES-CHIP	10K	5%	1/16W

< TUNER >

REF.NO.	PART NO.	DESCRIPTION
TU3001	8-598-542-20	TUNER, FSS BTF-WA412
TU3002	8-598-542-20	TUNER, FSS BTF-WA412

< VARISTOR >

REF.NO.	PART NO.	DESCRIPTION
VDR3001	1-803-974-21	VARISTOR, CHIP
VDR3002	1-803-974-21	VARISTOR, CHIP

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X3001	1-760-895-21	VIBRATOR, CERAMIC (2.69MHz)

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1316-574-A	G BOARD, COMPLETE *****************************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		< CAPACITOR >			
C6001 ⚠	1-104-708-51	MYLAR	0.47µF	20%	250V
C6002 ⚠	1-104-706-51	MYLAR	0.22µF	20%	250V
C6003 ⚠	1-119-906-51	CERAMIC	2200pF	20%	250V
C6004 ⚠	1-161-964-91	CERAMIC	0.0047µF		250V
C6005 ⚠	1-161-964-91	CERAMIC	0.0047µF		250V
C6006 ⚠	1-161-964-91	CERAMIC	0.0047µF		250V
C6007 ⚠	1-161-964-91	CERAMIC	0.0047µF		250V
C6008 ⚠	1-125-982-11	ELECT MELF	1800µF	20%	250V
C6010 ⚠	1-125-982-11	ELECT MELF	1800µF	20%	250V
C6011 ⚠	1-119-906-51	CERAMIC	2200pF	20%	250V
C6012	1-117-228-11	MYLAR	2.2µF	10%	450V
C6013	1-126-947-11	ELECT	47µF	20%	25V
C6016	1-164-644-11	CERAMIC	330pF	10%	500V
C6017	1-135-945-81	FILM	10000pF	3%	800V
C6018	1-117-227-11	MYLAR	1µF	10%	450V
C6022	1-137-725-21	FILM	8200pF	3%	800V
C6023	1-126-965-91	ELECT	22µF	20%	50V
C6024	1-126-965-91	ELECT	22µF	20%	50V
C6025	1-164-644-11	CERAMIC	330pF	10%	500V
C6026	1-137-725-21	FILM	8200pF	3%	800V
C6033	1-137-756-21	FILM	22000pF	3%	800V
C6034	1-137-756-21	FILM	22000pF	3%	800V
C6036	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C6037	1-104-665-11	ELECT	100µF	20%	25V
C6038 ⚠	1-119-906-51	CERAMIC	2200pF	20%	250V
C6039 ⚠	1-119-906-51	CERAMIC	2200pF	20%	250V
C6044	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6056	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C6057	1-126-967-11	ELECT	47µF	20%	50V
C6058	1-126-964-11	ELECT	10µF	20%	50V
C6059	1-126-964-11	ELECT	10µF	20%	50V
C6060	1-136-165-00	FILM	0.1µF	5%	50V
C6061	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6065	1-126-963-11	ELECT	4.7µF	20%	50V
C6068	1-136-479-11	FILM	0.001µF	2%	50V
C6072	1-107-679-91	ELECT	10µF	20%	450V
C6080	1-126-947-11	ELECT	47µF	20%	25V
C6085	1-126-948-11	ELECT	100µF	20%	35V
C6086	1-126-949-11	ELECT	220µF	20%	35V
C6088	1-107-824-11	CERAMIC	220pF	5%	1KV
C6089	1-107-824-11	CERAMIC	220pF	5%	1KV
C6090	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6091	1-136-479-11	FILM	0.001µF	2%	50V
C6092	1-126-963-11	ELECT	4.7µF	20%	50V
C6093	1-126-964-11	ELECT	10µF	20%	50V
C6094	1-126-948-11	ELECT	100µF	20%	35V
C6095	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C6097	1-136-165-00	FILM	0.1µF	5%	50V
C6099	1-126-947-11	ELECT	47µF	20%	25V
C6101	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C6102	1-104-665-11	ELECT	100µF	20%	25V
C6103	1-126-947-11	ELECT	47µF	20%	25V
C6108	1-126-947-11	ELECT	47µF	20%	25V
C6110	1-115-745-51	ELECT	0.0039F	20%	10V
C6113	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6114	1-107-641-11	ELECT	220µF	20%	160V
C6115	1-136-165-00	FILM	0.1µF	5%	50V
C6117	1-115-745-51	ELECT	0.0039F	20%	10V
C6118	1-126-943-11	ELECT	2200µF	20%	25V
C6119	1-126-943-11	ELECT	2200µF	20%	25V
C6120	1-128-549-11	ELECT	3300µF	20%	35V
C6121	1-128-549-11	ELECT	3300µF	20%	35V
C6123	1-107-641-11	ELECT	220µF	20%	160V
C6124	1-128-549-11	ELECT	3300µF	20%	35V
C6125	1-128-549-11	ELECT	3300µF	20%	35V
C6128	1-128-549-11	ELECT	3300µF	20%	35V
C6129	1-128-549-11	ELECT	3300µF	20%	35V
C6130	1-115-467-11	CERAMIC CHIP	0.22µF	10%	10V
C6131	1-104-665-11	ELECT	100µF	20%	25V
C6132	1-104-665-11	ELECT	100µF	20%	25V
C6134	1-126-968-11	ELECT	100µF	20%	50V
C6135	1-126-968-11	ELECT	100µF	20%	50V
C6137	1-126-935-11	ELECT	470µF	20%	16V
C6139	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C6140	1-104-666-11	ELECT	220µF	20%	25V
C6145	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C6146	1-126-964-11	ELECT	10µF	20%	50V
C6150	1-136-165-00	FILM	0.1µF	5%	50V
C6151	1-101-810-00	CERAMIC	100pF	5%	500V
C6152	1-101-810-00	CERAMIC	100pF	5%	500V
C6153	1-101-810-00	CERAMIC	100pF	5%	500V
C6154	1-101-810-00	CERAMIC	100pF	5%	500V
C6155	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6160	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6165	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6166	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6167	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6168	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6169	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6170	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C6179	1-126-940-11	ELECT	330µF	20%	25V
C6183	1-126-935-11	ELECT	470µF	20%	16V
C6184	1-115-745-51	ELECT	0.0039F	20%	10V
C6185	1-128-547-11	ELECT	6800µF	20%	16V
C6186	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C6189	1-126-947-11	ELECT	47µF	20%	25V
C6190	1-126-947-11	ELECT	47µF	20%	25V
C6191	1-126-963-11	ELECT	4.7µF	20%	50V
C6192	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C6199	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
		< CONNECTOR >			
CN6001	1-580-843-11	PIN, CONNECTOR (POWER)			
CN6101 *	1-564-512-11	PLUG, CONNECTOR 9P			
CN6102 *	1-691-757-11	PIN, CONNECTOR (PC BOARD) 8P			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN6103	1-695-915-11	TAB (CONTACT)	
CN6104 *	1-764-333-11	PLUG, CONNECTOR 10P	
CN6106 *	1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P	
	< DIODE >		
D6001 ⚠	8-719-018-79	DIODE D6SB60LF	
D6002 ⚠	8-719-055-18	DIODE ERA22-08TP3	
D6003	8-719-068-00	DIODE ERC04-06SE	
D6004	8-719-068-00	DIODE ERC04-06SE	
D6007	8-719-083-78	DIODE 10ERA60-TP	
D6011	8-719-083-78	DIODE 10ERA60-TP	
D6015 ⚠	8-719-077-76	DIODE D2SB60A-F04	
D6016	8-719-083-82	DIODE UDZS-TE17-12B	
D6017	8-719-063-70	DIODE D1NL20U	
D6048	8-719-063-70	DIODE D1NL20U	
D6049	8-719-063-70	DIODE D1NL20U	
D6050	8-719-404-50	DIODE MA111-TX	
D6051	8-719-404-50	DIODE MA111-TX	
D6061	8-719-110-53	DIODE RD20ES-B2	
D6062	8-719-110-53	DIODE RD20ES-B2	
D6104	8-719-031-78	DIODE S2L40F	
D6105	8-719-052-91	DIODE D4SBS4-F	
D6107	8-719-031-78	DIODE S2L40F	
D6108	8-719-510-09	DIODE D10SC6M	
D6111	8-719-404-50	DIODE MA111-TX	
D6112	8-719-404-50	DIODE MA111-TX	
D6113	8-719-404-50	DIODE MA111-TX	
D6114	8-719-072-30	DIODE D25SC6MRF04	
D6115	8-719-510-09	DIODE D10SC6M	
D6116	8-719-072-29	DIODE D25SC6MF04	
D6117	8-719-988-31	DIODE D10SC6MR	
D6121	8-719-083-67	DIODE UDZSTE-1720B	
D6122	8-719-404-50	DIODE MA111-TX	
D6123	8-719-404-50	DIODE MA111-TX	
D6124	8-719-404-50	DIODE MA111-TX	
D6125	8-719-404-50	DIODE MA111-TX	
D6126	8-719-069-55	DIODE UDZSTE-175.6B	
D6130	8-719-055-40	DIODE FCQ30A04	
D6131	8-719-404-50	DIODE MA111-TX	
D6132	8-719-404-50	DIODE MA111-TX	
D6133	8-719-056-84	DIODE UDZ-TE-17-7.5B	
D6143	8-719-404-50	DIODE MA111-TX	
D6144	8-719-404-50	DIODE MA111-TX	
D6183	8-719-510-09	DIODE D10SC6M	
	< FUSE >		
F6001 ⚠	1-576-048-11	FUSE, GLASS TUBE (10A/125V)	
F6103 ⚠	1-576-360-21	FUSE, MULTIPLE (4A/30V)	
F6104 ⚠	1-576-360-21	FUSE, MULTIPLE (4A/30V)	
	< FERRITEBEAD >		
FB6003	1-410-396-41	FERRITE 0.45µH	
FB6004	1-410-396-41	FERRITE 0.45µH	

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB6005	1-410-397-21	FERRITE 1.1µH	
FB6018	1-410-397-21	FERRITE 1.1µH	
FB6019	1-410-396-41	FERRITE 0.45µH	
FB6020	1-410-396-41	FERRITE 0.45µH	
FB6103	1-410-397-21	FERRITE 1.1µH	
FB6104	1-410-397-21	FERRITE 1.1µH	
FB6107	1-410-397-21	FERRITE 1.1µH	
FB6108	1-410-397-21	FERRITE 1.1µH	
FB6114	1-410-397-21	FERRITE 1.1µH	
FB6115	1-410-397-21	FERRITE 1.1µH	
	< FUSE HOLDER >		
FH6001	1-533-223-11	CLIP, FUSE	
FH6002	1-533-223-11	CLIP, FUSE	
	< IC >		
IC6001	8-759-670-30	IC MCZ3001D	
IC6002	8-759-670-30	IC MCZ3001D	
IC6101	8-749-012-13	IC DM-58	
IC6102	8-759-103-93	IC µPC393C	
IC6103	8-759-198-31	IC µPC1093J-1-T	
IC6104	8-759-198-31	IC µPC1093J-1-T	
IC6106	8-759-663-29	IC MM1476AF(TP)	
IC6107	8-759-198-31	IC µPC1093J-1-T	
	< COIL >		
L6001 ⚠	1-431-116-11	TRANSFORMER, LINE FILTER	
L6002 ⚠	1-431-116-11	TRANSFORMER, LINE FILTER	
L6003	1-406-977-21	INDUCTOR 100µH	
L6004	1-406-977-21	INDUCTOR 100µH	
L6102	1-406-973-11	INDUCTOR 22µH	
L6103	1-406-657-11	INDUCTOR 4.7µH	
L6106	1-412-525-31	INDUCTOR 10µH	
L6108	1-412-525-31	INDUCTOR 10µH	
L6109	1-412-525-31	INDUCTOR 10µH	
L6111	1-412-525-31	INDUCTOR 10µH	
L6112	1-412-525-31	INDUCTOR 10µH	
L6124	1-412-519-11	INDUCTOR 3.3µH	
	< PHOTO COUPLER >		
PH6001 ⚠	8-749-010-65	PHOTO COUPLER PC123F2	
PH6002 ⚠	8-749-010-65	PHOTO COUPLER PC123F2	
PH6003 ⚠	8-749-010-65	PHOTO COUPLER PC123F2	
PH6004 ⚠	8-749-010-65	PHOTO COUPLER PC123F2	
PH6005 ⚠	8-749-010-65	PHOTO COUPLER PC123F2	
	< IC LINK >		
PS6101 ⚠	1-533-596-31	LINK, IC (4A)	
PS6102 ⚠	1-533-596-31	LINK, IC (4A)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q6001	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6003	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6004	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6005	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6006	8-729-052-32	TRANSISTOR IRFIB7N50A	
Q6007	8-729-052-32	TRANSISTOR IRFIB7N50A	
Q6008	8-729-052-29	TRANSISTOR 2SK2876-01MR-F1	
Q6009	8-729-052-29	TRANSISTOR 2SK2876-01MR-F1	
Q6010	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6101	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6104	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6105	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6110	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6111	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6115	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q6119	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q6120	8-729-922-39	TRANSISTOR 2SD2144S-V	
Q6121	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
R6001 ⚠	1-219-776-91	CARBON	2.2M	10%	1/2W	
R6002 ⚠	1-219-759-91	CARBON	1M	5%	1/2W	
R6003 ⚠	1-260-131-91	CARBON	470K	5%	1/2W	
R6004 ⚠	1-260-328-71	CARBON	1K	5%	1/2W	
R6005 ⚠	1-216-829-91	RES-CHIP	4.7K	5%	1/16W	
R6006 ⚠	1-260-131-91	CARBON	470K	5%	1/2W	
R6007	1-249-417-11	CARBON	1K	5%	1/4W	
R6008	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R6009	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R6010 ⚠	1-205-997-11	CEMENTED	2.2	5%	10W	
R6013	1-215-481-00	METAL	330K	1%	1/4W	
R6014	1-215-481-00	METAL	330K	1%	1/4W	
R6015	1-215-481-00	METAL	330K	1%	1/4W	
R6017	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W	
R6018	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R6019	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6020	1-216-839-11	RES-CHIP	33K	5%	1/16W	
R6021	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R6022	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6029	1-249-393-11	CARBON	10	5%	1/4W	
R6031	1-249-393-11	CARBON	10	5%	1/4W	
R6033	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6035	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6041 ⚠	1-220-778-11	FUSIBLE	0.1	10%	1/2W	
R6042	1-216-843-11	RES-CHIP	68K	5%	1/16W	
R6043	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R6044	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6052	1-243-979-71	METAL OXIDE	0.1	5%	2W	
R6053	1-218-668-11	METAL CHIP	100	0.5%	1/16W	
R6056	1-243-979-71	METAL OXIDE	0.1	5%	2W	
R6057	1-249-389-11	CARBON	4.7	5%	1/4W	
R6058	1-216-851-11	RES-CHIP	330K	5%	1/16W	
R6059	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R6060	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R6062	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R6064	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	
R6065	1-260-134-11	CARBON	820K	5%	1/2W	
R6067	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R6068	1-218-718-11	METAL CHIP	12K	0.5%	1/16W	
R6070	1-218-675-11	METAL CHIP	200	0.5%	1/16W	
R6071	1-216-817-11	RES-CHIP	470	5%	1/16W	
R6072	1-216-864-11	SHORT	0			
R6073	1-249-377-11	CARBON	0.47	5%	1/4W	
R6074	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R6079	1-216-864-11	SHORT	0			
R6080	1-216-817-11	RES-CHIP	470	5%	1/16W	
R6081	1-249-393-11	CARBON	10	5%	1/4W	
R6082	1-249-393-11	CARBON	10	5%	1/4W	
R6083	1-216-363-00	METAL OXIDE	0.33	5%	2W	
R6084	1-216-363-00	METAL OXIDE	0.33	5%	2W	
R6088	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6089	1-249-393-11	CARBON	10	5%	1/4W	
R6090	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6091	1-249-393-11	CARBON	10	5%	1/4W	
R6092	1-218-715-11	METAL CHIP	9.1K	0.5%	1/16W	
R6093	1-218-720-11	METAL CHIP	15K	0.5%	1/16W	
R6094	1-218-656-11	METAL CHIP	33	0.5%	1/16W	
R6095	1-218-668-11	METAL CHIP	100	0.5%	1/16W	
R6096	1-215-481-00	METAL	330K	1%	1/4W	
R6097	1-215-481-00	METAL	330K	1%	1/4W	
R6098	1-215-481-00	METAL	330K	1%	1/4W	
R6099 ⚠	1-220-926-11	FUSIBLE	0.47	10%	1/2W	
R6101 ⚠	1-218-708-91	METAL CHIP	4.7K	0.5%	1/16W	
R6102	1-218-750-11	METAL CHIP	270K	0.5%	1/16W	
R6103	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	
R6104	1-216-818-11	RES-CHIP	560	5%	1/16W	
R6105	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6106	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6108	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R6109	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R6110	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6111	1-216-809-11	RES-CHIP	100	5%	1/16W	
R6112	1-216-809-11	RES-CHIP	100	5%	1/16W	
R6113	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6115	1-249-415-11	CARBON	680	5%	1/4W	
R6116	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R6117	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R6118	1-216-361-00	METAL OXIDE	0.22	5%	2W	
R6119	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6120	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6121	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6125	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R6126	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6127	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R6131	1-216-789-11	RES-CHIP	2.2	5%	1/16W	
R6132	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6133	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6134	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R6135	1-249-425-11	CARBON	4.7K	5%	1/4W	
R6136	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R6142	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6143	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6147	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R6148	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6149	1-216-864-11	SHORT	0		
R6150	1-218-725-11	METAL CHIP	24K	0.5%	1/16W
R6152	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W
R6153	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6154	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6162	1-249-405-11	CARBON	100	5%	1/4W
R6163	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R6165	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R6166	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6167	1-216-864-11	SHORT	0		
R6168	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6169	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R6171	1-215-859-00	METAL OXIDE	22	5%	1W
R6174	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6175	1-219-393-11	METAL	0.05	10%	5W
R6177	1-216-809-11	RES-CHIP	100	5%	1/16W
R6178	1-216-841-11	RES-CHIP	47K	5%	1/16W
R6180	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6181	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6182	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6183	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6184	1-216-809-11	RES-CHIP	100	5%	1/16W
R6195	1-216-841-11	RES-CHIP	47K	5%	1/16W
R6196	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6197	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6198	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6199	1-216-833-11	RES-CHIP	10K	5%	1/16W
	< RELAY >				
RY6001	⚠ 1-755-388-11	RELAY (AC POWER)			
RY6002	⚠ 1-755-388-11	RELAY (AC POWER)			
	< TRANSFORMER >				
T6001	⚠ 1-429-807-12	TRANSFORMER, CONVERTER (PIT)			
T6002	⚠ 1-431-897-11	TRANSFORMER, CONVERTER (PIT)			
T6003	⚠ 1-437-455-11	TRANSFORMER ASSY, POWER (HST)			
T6004	⚠ 1-437-484-11	TRANSFORMER, CONVERTER (PIT)			
	< THERMISTOR >				
TH6001	1-803-586-11	THERMISTOR, NTC			
	< VARISTOR >				
VD6000	⚠ 1-801-268-51	VARISTOR TNR14V471K660			
VD6001	⚠ 1-801-268-51	VARISTOR TNR14V471K660			

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1332-186-A	CR BOARD, COMPLETE			
		******************************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	< CAPACITOR >				
C3701	1-104-570-11	CERAMIC	0.001µF	10%	2KV
C3702	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3705	1-107-662-11	ELECT	22µF	20%	250V
C3706	1-161-830-00	CERAMIC	0.0047µF		500V
C3707	1-101-003-00	CERAMIC	0.0047µF		50V
C3708	1-126-933-11	ELECT	100µF	20%	16V
C3710	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3711	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3712	1-126-933-11	ELECT	100µF	20%	16V
C3714	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C3715	1-101-003-00	CERAMIC	0.0047µF		50V
C3716	1-101-003-00	CERAMIC	0.0047µF		50V
C3717	1-164-156-11	CERAMIC CHIP	0.1µF		25V
	< CONNECTOR >				
CN3701	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN3702	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN3703	* 1-564-508-11	PLUG, CONNECTOR 5P			
CN3705	1-695-915-11	TAB (CONTACT)			
CN3707	1-785-879-11	CONNECTOR, ONE TOUCH			
	< DIODE >				
D3701	8-719-901-83	DIODE 1SS83			
D3704	8-719-901-83	DIODE 1SS83			
D3709	8-719-404-50	DIODE MA111-TX			
	< IC >				
IC3701	8-759-680-01	IC TDA6120Q/N2/S1			
	< JACK >				
J3701	⚠ 1-251-182-21	SOCKET, PICTURE TUBE			
	< CHIP CONDUCTOR >				
JC3701	1-216-864-11	SHORT	0		
	< COIL >				
L3701	1-469-555-21	INDUCTOR	10µH		
L3703	1-469-555-21	INDUCTOR	10µH		
	< NEON LAMP >				
NL3701	1-517-778-21	LAMP, NEON			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	< TRANSISTOR >					
Q3702	8-729-048-50	TRANSISTOR 2SK3018-T106				
	< RESISTOR >					
R3701	1-260-133-11	CARBON	680K	5%	1/2W	
R3703	1-216-813-11	RES-CHIP	220	5%	1/16W	
R3704	1-260-132-11	CARBON	560K	5%	1/2W	
R3705	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R3706	1-216-815-11	RES-CHIP	330	5%	1/16W	
R3711	1-219-743-11	CARBON	100	5%	1/2W	
R3714	1-218-703-11	METAL CHIP	3K	0.5%	1/16W	
R3715	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W	
R3716	1-260-328-11	CARBON	1K	5%	1/2W	
R3720	1-215-925-11	METAL OXIDE	22K	5%	3W	
R3721	1-260-087-11	CARBON	100	5%	1/2W	
R3722	1-260-093-11	CARBON	330	5%	1/2W	
R3726	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	
R3727	1-218-748-11	METAL CHIP	220K	0.5%	1/16W	
R3729	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R3731	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	
	< SPARK GAP >					
SG3701	1-517-729-31	GAP, SPARK				
SG3702	1-519-422-11	GAP, SPARK				
SG3703	1-519-421-11	GAP, DISCHARGE				

****

* A-1332-187-A CG BOARD, COMPLETE
****

REF.NO.	PART NO.	DESCRIPTION				REMARK
	4-382-854-11	SCREW (M3X10), P, SW (+)				
	< CAPACITOR >					
C3801	1-107-662-11	ELECT	22µF	20%	250V	
C3802	1-104-570-11	CERAMIC	0.001µF	10%	2KV	
C3804	1-126-933-11	ELECT	100µF	20%	16V	
C3805	1-162-919-11	CERAMIC CHIP	22pF	5%	50V	
C3807	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C3808	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C3809	1-101-003-00	CERAMIC	0.0047µF		50V	
C3811	1-126-933-11	ELECT	100µF	20%	16V	
C3813	1-161-830-00	CERAMIC	0.0047µF		500V	
C3814	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V	
C3815	1-101-003-00	CERAMIC	0.0047µF		50V	
C3816	1-101-003-00	CERAMIC	0.0047µF		50V	
C3817	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
	< CONNECTOR >					
CN3801 *	1-564-511-11	PLUG, CONNECTOR 8P				
CN3802 *	1-564-511-11	PLUG, CONNECTOR 8P				
CN3803 *	1-564-507-11	PLUG, CONNECTOR 4P				
CN3804 *	1-564-507-11	PLUG, CONNECTOR 4P				
CN3805 *	1-564-506-11	PLUG, CONNECTOR 3P				
CN3806 *	1-564-509-11	PLUG, CONNECTOR 6P				
CN3807	1-695-915-11	TAB (CONTACT)				
CN3809	1-785-879-11	CONNECTOR, ONE TOUCH				
	< DIODE >					
D3801	8-719-901-83	DIODE 1SS83				
D3806	8-719-901-83	DIODE 1SS83				
D3809	8-719-404-50	DIODE MA111-TX				
	< IC >					
IC3801	8-759-680-01	IC TDA6120Q/N2/S1				
	< JACK >					
J3801	⚠ 1-251-182-21	SOCKET, PICTURE TUBE				
	< CHIP CONDUCTOR >					
JC3801	1-216-864-11	SHORT	0			
	< COIL >					
L3801	1-469-555-21	INDUCTOR	10µH			
L3803	1-469-555-21	INDUCTOR	10µH			
	< NEON LAMP >					
NL3801	1-517-778-21	LAMP, NEON				
	< TRANSISTOR >					
Q3802	8-729-048-50	TRANSISTOR 2SK3018-T106				
	< RESISTOR >					
R3801	1-260-133-11	CARBON	680K	5%	1/2W	
R3802	1-260-132-11	CARBON	560K	5%	1/2W	
R3804	1-216-813-11	RES-CHIP	220	5%	1/16W	
R3806	1-216-814-11	RES-CHIP	270	5%	1/16W	
R3807	1-218-690-11	METAL CHIP	820	0.5%	1/16W	
R3810	1-219-743-11	CARBON	100	5%	1/2W	
R3816	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W	
R3817	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	
R3820	1-215-925-11	METAL OXIDE	22K	5%	3W	
R3821	1-260-328-11	CARBON	1K	5%	1/2W	
R3822	1-260-087-11	CARBON	100	5%	1/2W	
R3823	1-260-093-11	CARBON	330	5%	1/2W	
R3825	1-218-746-11	METAL CHIP	180K	0.5%	1/16W	
R3826	1-218-746-11	METAL CHIP	180K	0.5%	1/16W	
R3828	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3830	1-216-823-11	RES-CHIP	1.5K	5%	1/16W

< SPARK GAP >

REF.NO.	PART NO.	DESCRIPTION			REMARK
SG3801	1-517-729-31	GAP, SPARK			
SG3802	1-519-422-11	GAP, SPARK			
SG3803	1-519-421-11	GAP, DISCHARGE			

****

* A-1332-188-A CB BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3901	1-104-570-11	CERAMIC	0.001µF	10%	2KV
C3902	1-101-003-00	CERAMIC	0.0047µF		50V
C3903	1-107-662-11	ELECT	22µF	20%	250V
C3904	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3905	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C3906	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3907	1-126-933-11	ELECT	100µF	20%	16V
C3909	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3910	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C3911	1-126-933-11	ELECT	100µF	20%	16V
C3912	1-161-830-00	CERAMIC	0.0047µF		500V
C3914	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3915	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C3916	1-101-003-00	CERAMIC	0.0047µF		50V
C3917	1-101-003-00	CERAMIC	0.0047µF		50V
C3918	1-164-156-11	CERAMIC CHIP	0.1µF		25V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
CN3901	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN3902	* 1-564-511-11	PLUG, CONNECTOR 8P			
CN3903	* 1-564-506-11	PLUG, CONNECTOR 3P			
CN3906	1-695-915-11	TAB (CONTACT)			
CN3908	1-785-879-11	CONNECTOR, ONE TOUCH			
CN3909	* 1-564-507-11	PLUG, CONNECTOR 4P			

< DIODE >

REF.NO.	PART NO.	DESCRIPTION			REMARK
D3901	8-719-404-50	DIODE MA111-TX			
D3902	8-719-901-83	DIODE 1SS83			
D3909	8-719-901-83	DIODE 1SS83			
D3910	8-719-404-50	DIODE MA111-TX			

< IC >

REF.NO.	PART NO.	DESCRIPTION			REMARK
IC3901	8-759-680-01	IC TDA6120Q/N2/S1			

< JACK >

REF.NO.	PART NO.	DESCRIPTION			REMARK
J3901	⚠ 1-251-182-21	SOCKET, PICTURE TUBE			

< CHIP CONDUCTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
JC3901	1-216-864-11	SHORT	0		

< COIL >

REF.NO.	PART NO.	DESCRIPTION			REMARK
L3901	1-469-555-21	INDUCTOR	10µH		
L3903	1-469-555-21	INDUCTOR	10µH		

< NEON LAMP >

REF.NO.	PART NO.	DESCRIPTION			REMARK
NL3901	1-517-778-21	LAMP, NEON			

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q3901	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q3902	8-729-048-50	TRANSISTOR 2SK3018-T106			

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R3901	1-216-813-11	RES-CHIP	220	5%	1/16W
R3902	1-216-817-11	RES-CHIP	470	5%	1/16W
R3903	1-260-133-11	CARBON	680K	5%	1/2W
R3904	1-260-132-11	CARBON	560K	5%	1/2W
R3905	1-219-743-11	CARBON	100	5%	1/2W
R3906	1-216-815-11	RES-CHIP	330	5%	1/16W
R3907	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R3908	1-216-809-11	RES-CHIP	100	5%	1/16W
R3909	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R3913	1-218-722-11	METAL CHIP	18K	0.5%	1/16W
R3914	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W
R3916	1-218-690-11	METAL CHIP	820	0.5%	1/16W
R3917	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R3920	1-215-925-11	METAL OXIDE	22K	5%	3W
R3923	1-260-328-11	CARBON	1K	5%	1/2W
R3924	1-260-087-11	CARBON	100	5%	1/2W
R3925	1-260-093-11	CARBON	330	5%	1/2W
R3927	1-218-749-11	METAL CHIP	240K	0.5%	1/16W
R3928	1-218-749-11	METAL CHIP	240K	0.5%	1/16W
R3930	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3932	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3933	1-218-680-11	METAL CHIP	330	0.5%	1/16W
R3934	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R3935	1-249-393-11	CARBON	10	5%	1/4W

< SPARK GAP >

REF.NO.	PART NO.	DESCRIPTION			REMARK
SG3901	1-517-729-31	GAP, SPARK			
SG3902	1-519-422-11	GAP, SPARK			
SG3903	1-519-421-11	GAP, DISCHARGE			

****

* A-1342-612-A V BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

V D

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C9001	1-126-933-11	ELECT	100µF	20%	16V
C9002	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9003	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C9004	1-107-662-11	ELECT	22µF	20%	250V
C9006	1-161-830-00	CERAMIC	0.0047µF		500V
C9007	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9008	1-126-964-11	ELECT	10µF	20%	50V
C9009	1-107-636-11	ELECT	10µF	20%	160V
C9010	1-137-528-11	MYLAR	0.1µF	10%	250V
C9011	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C9012	1-137-528-11	MYLAR	0.1µF	10%	250V
C9013	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9014	1-117-450-11	MYLAR	0.47µF	10%	250V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
CN9001 *	1-564-508-11	PLUG, CONNECTOR 5P			
CN9002 *	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			

< FERRITEBEAD >

REF.NO.	PART NO.	DESCRIPTION			REMARK
FB9001	1-469-869-21	FERRITE	0µH		
FB9002	1-469-869-21	FERRITE	0µH		

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q9001	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q9002	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q9003	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q9004	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9005	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q9006	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX			
Q9011	8-729-045-05	TRANSISTOR 2SA2005			
Q9012	8-729-045-04	TRANSISTOR 2SC5511			

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R9001	1-249-381-11	CARBON	1	5%	1/4W
R9002	1-216-820-11	RES-CHIP	820	5%	1/16W
R9003	1-216-819-11	RES-CHIP	680	5%	1/16W
R9004	1-216-835-11	RES-CHIP	15K	5%	1/16W
R9005	1-216-839-11	RES-CHIP	33K	5%	1/16W
R9006	1-216-811-11	RES-CHIP	150	5%	1/16W
R9008	1-216-817-11	RES-CHIP	470	5%	1/16W
R9009	1-216-813-11	RES-CHIP	220	5%	1/16W
R9010	1-216-813-11	RES-CHIP	220	5%	1/16W
R9011	1-249-391-11	CARBON	6.8	5%	1/4W
R9012	1-249-391-11	CARBON	6.8	5%	1/4W
R9013	1-249-391-11	CARBON	6.8	5%	1/4W
R9014	1-249-391-11	CARBON	6.8	5%	1/4W
R9017	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9018	1-216-848-11	RES-CHIP	180K	5%	1/16W
R9019	1-216-848-11	RES-CHIP	180K	5%	1/16W
R9020	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9021	1-216-805-11	RES-CHIP	47	5%	1/16W
R9022	1-216-805-11	RES-CHIP	47	5%	1/16W
R9025	1-215-890-11	METAL OXIDE	470	5%	2W
R9026	1-216-847-11	RES-CHIP	150K	5%	1/16W
R9027	1-216-847-11	RES-CHIP	150K	5%	1/16W

****

* A-1348-120-A D BOARD, COMPLETE

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	3-710-578-01	COVER, VOLUME, 6 MOLD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	7-682-952-09	SCREW +PSW 3X16			

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8001	1-137-372-11	MYLAR	0.022µF	5%	50V
C8002	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8003	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8004	1-104-666-11	ELECT	220µF	20%	25V
C8005	1-126-942-61	ELECT	1000µF	20%	25V
C8006	1-126-942-61	ELECT	1000µF	20%	25V
C8007	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8008	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8009	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8010	1-136-177-00	FILM	1µF	5%	50V
C8011	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8012	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8013	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8014	1-104-665-11	ELECT	100µF	20%	25V
C8015	1-126-969-11	ELECT	220µF	20%	50V
C8016	1-104-665-11	ELECT	100µF	20%	25V
C8017	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C8018	1-126-964-11	ELECT	10µF	20%	50V
C8023	1-106-220-00	MYLAR	0.1µF	10%	100V
C8024	1-137-372-11	MYLAR	0.022µF	5%	50V
C8025	1-126-968-11	ELECT	100µF	20%	50V
C8026	1-126-968-11	ELECT	100µF	20%	50V
C8028	1-126-968-11	ELECT	100µF	20%	50V
C8029	1-126-968-11	ELECT	100µF	20%	50V
C8031	1-107-636-11	ELECT	10µF	20%	160V
C8032	1-126-968-11	ELECT	100µF	20%	50V
C8033	1-126-968-11	ELECT	100µF	20%	50V
C8036	1-126-968-11	ELECT	100µF	20%	50V
C8037	1-126-968-11	ELECT	100µF	20%	50V
C8040	1-115-349-51	CERAMIC	0.01µF		2KV
C8045	1-126-965-91	ELECT	22µF	20%	50V
C8046	1-126-965-91	ELECT	22µF	20%	50V
C8047	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8048	1-126-965-91	ELECT	22µF	20%	50V
C8049	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8050	1-126-965-91	ELECT	22µF	20%	50V
C8051	1-102-038-00	CERAMIC	0.001µF		500V
C8052	1-126-965-91	ELECT	22µF	20%	50V
C8053	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8054	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8055	1-164-156-11	CERAMIC CHIP	0.1µF		25V

D

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8056	1-107-652-11	ELECT	10µF	20%	250V
C8057	1-126-959-11	ELECT	0.47µF	20%	50V
C8058	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C8059	1-127-715-91	CERAMIC CHIP	0.22µF	10%	16V
C8060	1-104-665-11	ELECT	100µF	20%	25V
C8061	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8062	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8063	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8064	1-107-636-11	ELECT	10µF	20%	160V
C8065	1-106-383-00	MYLAR	0.047µF	10%	200V
C8066	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8067	1-104-665-11	ELECT	100µF	20%	25V
C8068	1-102-038-00	CERAMIC	0.001µF		500V
C8069	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8070	1-126-964-11	ELECT	10µF	20%	50V
C8071	1-126-964-11	ELECT	10µF	20%	50V
C8072	1-126-964-11	ELECT	10µF	20%	50V
C8073	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8074	1-104-665-11	ELECT	100µF	20%	25V
C8075	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8076	1-128-551-11	ELECT	22µF	20%	25V
C8077	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8078	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C8079	1-126-964-11	ELECT	10µF	20%	50V
C8080	1-126-964-11	ELECT	10µF	20%	50V
C8081	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C8082	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C8083	1-130-495-00	MYLAR	0.1µF	5%	50V
C8084	1-130-992-11	FILM	0.022µF	5%	50V
C8085	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
C8086	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8087	1-126-960-11	ELECT	1µF	20%	50V
C8088	1-126-964-11	ELECT	10µF	20%	50V
C8089	1-107-444-11	CERAMIC	100pF	10%	2KV
C8090	1-126-960-11	ELECT	1µF	20%	50V
C8091	1-104-665-11	ELECT	100µF	20%	25V
C8092	1-117-640-11	FILM	6800pF	3%	1.2KV
C8093	1-107-648-91	ELECT	100µF	20%	160V
C8094	1-104-665-11	ELECT	100µF	20%	25V
C8095	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8096	1-136-684-51	MYLAR	0.0022µF	10%	100V
C8097	1-162-131-11	CERAMIC	220pF	10%	2KV
C8098	1-162-131-11	CERAMIC	220pF	10%	2KV
C8099	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C8100	1-126-961-11	ELECT	2.2µF	20%	50V
C8102	1-102-038-00	CERAMIC	0.001µF		500V
C8103	1-126-964-11	ELECT	10µF	20%	50V
C8104	1-162-965-11	CERAMIC CHIP	0.0015µF	10%	50V
C8105	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8106	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8107	1-136-187-11	MYLAR	0.047µF	10%	250V
C8108	1-126-964-11	ELECT	10µF	20%	50V
C8109	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
C8110	1-126-960-11	ELECT	1µF	20%	50V
C8111	1-126-960-11	ELECT	1µF	20%	50V
C8112	1-164-315-11	CERAMIC CHIP	470pF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8113	1-130-495-00	MYLAR	0.1µF	5%	50V
C8114	1-125-473-11	ELECT(BLOCK)	1000µF	20%	160V
C8115	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8116	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8117	1-102-038-00	CERAMIC	0.001µF		500V
C8118	1-136-189-00	MYLAR	0.1µF	10%	250V
C8119	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8120	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8121	1-115-349-51	CERAMIC	0.01µF		2KV
C8122	1-126-934-11	ELECT	220µF	20%	16V
C8123	1-107-444-11	CERAMIC	100pF	10%	2KV
C8124	1-117-642-11	FILM	8200pF	3%	1.2KV
C8125	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8126	1-106-357-00	MYLAR	0.0039µF	99%	200V
C8127	1-126-942-61	ELECT	1000µF	20%	25V
C8129	1-137-150-11	MYLAR	0.01µF	5%	50V
C8131	1-128-582-11	ELECT	10µF	20%	100V
C8132	1-126-942-61	ELECT	1000µF	20%	25V
C8133	1-107-649-11	ELECT	2.2µF	20%	250V
C8135	1-109-961-11	FILM	0.75µF	5%	250V
C8136	1-130-495-00	MYLAR	0.1µF	5%	50V
C8137	1-126-942-61	ELECT	1000µF	20%	25V
C8138	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C8139	1-126-964-11	ELECT	10µF	20%	50V
C8142	1-117-664-11	FILM	0.27µF	5%	250V
C8143	1-126-960-11	ELECT	1µF	20%	50V
C8148	1-104-665-11	ELECT	100µF	20%	25V
C8150	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8153	1-126-960-11	ELECT	1µF	20%	50V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN8002	* 1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN8003	* 1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P
CN8004	* 1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN8005	* 1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN8006	* 1-779-890-11	CONNECTOR, BOARD TO BOARD 10P
CN8007	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8008	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8009	* 1-564-506-11	PLUG, CONNECTOR 3P
CN8010	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8011	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8012	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8013	* 1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P
CN8015	* 1-506-371-00	PIN, CONNECTOR 2P
CN8016	* 1-564-507-11	PLUG, CONNECTOR 4P
CN8018	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8019	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8020	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN8021	* 1-506-371-00	PIN, CONNECTOR 2P
CN8022	* 1-564-510-11	PLUG, CONNECTOR 7P
CN8023	* 1-564-507-11	PLUG, CONNECTOR 4P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D8001	8-719-109-89	DIODE RD5.6ESB2

REF.NO.	PART NO.	DESCRIPTION		REMARK
D8002	8-719-110-53	DIODE RD20ES-B2		
D8003	8-719-924-13	DIODE MTZJ-T-77-22B		
D8004	8-719-908-03	DIODE GP08D		
D8005	8-719-991-33	DIODE 1SS133T-77		
D8006	8-719-991-33	DIODE 1SS133T-77		
D8007	8-719-991-33	DIODE 1SS133T-77		
D8008	8-719-991-33	DIODE 1SS133T-77		
D8009	8-719-991-33	DIODE 1SS133T-77		
D8010	8-719-991-33	DIODE 1SS133T-77		
D8011	8-719-991-33	DIODE 1SS133T-77		
D8012	8-719-991-33	DIODE 1SS133T-77		
D8013	8-719-109-85	DIODE RD5.1ESB2		
D8014	8-719-109-85	DIODE RD5.1ESB2		
D8015	8-719-991-33	DIODE 1SS133T-77		
D8016	8-719-991-33	DIODE 1SS133T-77		
D8019	8-719-991-33	DIODE 1SS133T-77		
D8020	8-719-991-33	DIODE 1SS133T-77		
D8021	8-719-061-21	DIODE FMQ-G5FMS		
D8022	8-719-991-33	DIODE 1SS133T-77		
D8023	8-719-991-33	DIODE 1SS133T-77		
D8024	8-719-110-41	DIODE RD15ES-B2		
D8025	8-719-991-33	DIODE 1SS133T-77		
D8026	8-719-109-89	DIODE RD5.6ESB2		
D8027	8-719-028-45	DIODE D2L20U		
D8028	8-719-110-41	DIODE RD15ES-B2		
D8029	8-719-028-45	DIODE D2L20U		
D8030	8-719-028-45	DIODE D2L20U		
D8031	8-719-110-49	DIODE RD18ES-B2		
D8032	8-719-302-43	DIODE EL1Z		
D8033	8-719-028-72	DIODE RGP02-17EL-6433		
D8034	6-500-004-01	DIODE ERD07-15L		
D8035	6-500-004-01	DIODE ERD07-15L		
D8036	8-719-110-41	DIODE RD15ES-B2		
D8037	8-719-028-45	DIODE D2L20U		
D8038	8-719-302-43	DIODE EL1Z		
D8039	8-719-028-72	DIODE RGP02-17EL-6433		
D8040	8-719-991-33	DIODE 1SS133T-77		
D8043	8-719-991-33	DIODE 1SS133T-77		
D8045	8-719-908-03	DIODE GP08D		
D8046	8-719-991-33	DIODE 1SS133T-77		
D8047	8-719-991-33	DIODE 1SS133T-77		
	< FERRITEBEAD >			
FB8001	1-410-397-21	FERRITE	1.1µH	
FB8002	1-410-397-21	FERRITE	1.1µH	
FB8003	1-414-229-11	FERRITE	0µH	
FB8004	1-216-864-11	SHORT	0	
FB8005	1-469-869-21	FERRITE	0µH	
FB8006	1-469-869-21	FERRITE	0µH	
FB8008	1-410-396-41	FERRITE	0.45µH	
FB8009	1-410-396-41	FERRITE	0.45µH	
FB8010	1-410-396-41	FERRITE	0.45µH	
FB8011	1-410-396-41	FERRITE	0.45µH	
FB8014	1-469-869-21	FERRITE	0µH	
FB8015	1-469-869-21	FERRITE	0µH	

REF.NO.	PART NO.	DESCRIPTION		REMARK
FB8016	1-469-869-21	FERRITE	0µH	
FB8017	1-469-869-21	FERRITE	0µH	
FB8018	1-469-869-21	FERRITE	0µH	
FB8019	1-410-397-21	FERRITE	1.1µH	
FB8020	1-414-229-11	FERRITE	0µH	
FB8021	1-410-397-21	FERRITE	1.1µH	
FB8022	1-410-396-41	FERRITE	0.45µH	
FB8023	1-410-396-41	FERRITE	0.45µH	
FB8024	1-469-869-21	FERRITE	0µH	
	< IC >			
IC8001	8-749-019-08	IC STK392-560		
IC8002	8-749-019-08	IC STK392-560		
IC8003	8-759-593-33	IC LA78045		
IC8004	8-759-595-88	IC AN77L12-TA		
IC8005	8-759-585-82	IC BA9759F-E2		
IC8006	8-759-700-07	IC NJM2903M		
IC8007	8-759-700-07	IC NJM2903M		
IC8008	8-759-585-82	IC BA9759F-E2		
IC8009	8-759-803-42	IC LA6500-FA		
IC8012	8-759-701-01	IC NJM2904M		
	< COIL >			
L8001	1-412-533-21	INDUCTOR	47µH	
L8002	1-412-533-21	INDUCTOR	47µH	
L8003	1-412-525-31	INDUCTOR	10µH	
L8004	1-412-533-21	INDUCTOR	47µH	
L8005	1-412-533-21	INDUCTOR	47µH	
L8006	1-412-525-31	INDUCTOR	10µH	
L8007	1-412-533-21	INDUCTOR	47µH	
L8008	1-412-533-21	INDUCTOR	47µH	
L8009	1-412-525-31	INDUCTOR	10µH	
L8010	1-414-187-11	INDUCTOR	47µH	
L8011	1-412-525-31	INDUCTOR	10µH	
L8012	1-414-187-11	INDUCTOR	47µH	
L8013	1-414-856-11	INDUCTOR	10µH	
L8014	1-414-189-31	INDUCTOR	100µH	
L8015	1-414-189-31	INDUCTOR	100µH	
L8016	1-412-537-31	INDUCTOR	100µH	
L8017	1-414-856-11	INDUCTOR	10µH	
L8018	1-406-663-21	INDUCTOR	47µH	
L8019	1-419-352-11	COIL, HORIZONTAL LINEARITY		
L8020	1-412-525-31	INDUCTOR	10µH	
L8021	1-406-659-11	INDUCTOR	10µH	
L8022	1-412-552-11	INDUCTOR	2.2mH	
L8023	1-414-856-11	INDUCTOR	10µH	
L8024	1-414-856-11	INDUCTOR	10µH	
L8025	1-414-856-11	INDUCTOR	10µH	
L8026	1-414-856-11	INDUCTOR	10µH	
	< NEON LAMP >			
NL8001	1-517-778-21	LAMP, NEON		

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

< IC LINK >

REF.NO.	PART NO.	DESCRIPTION	REMARK
PS8001 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8002 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8003 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8004 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8005 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8006 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	
PS8007 ⚠	1-533-595-31	LINK, IC (3.15A/90V AC, 60V DC)	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q8001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8002	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q8003	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8004	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8005	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8007	8-729-046-80	TRANSISTOR 2SC4634LS-CB11	
Q8008	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q8009	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q8010	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8011	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8014	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8015	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8016	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8019	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8020	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8021	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8022	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8023	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8024	8-729-056-50	TRANSISTOR 2SC5681-YB	
Q8027	8-729-050-13	TRANSISTOR 2SJ585LS-CC11	
Q8028	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8029	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8030	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8031	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8032	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8035	8-729-050-13	TRANSISTOR 2SJ585LS-CC11	
Q8036	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8037	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q8038	8-729-038-10	TRANSISTOR 1MB12-140-F153A	
Q8039	8-729-048-47	TRANSISTOR 2SC2688(5)-LK	
Q8101	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8001	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8002	1-216-809-11	RES-CHIP	100	5%	1/16W
R8003	1-216-809-11	RES-CHIP	100	5%	1/16W
R8004	1-216-809-11	RES-CHIP	100	5%	1/16W
R8005	1-215-875-11	METAL OXIDE	10K	5%	1W
R8007	1-216-809-11	RES-CHIP	100	5%	1/16W
R8008	1-216-809-11	RES-CHIP	100	5%	1/16W
R8009	1-216-809-11	RES-CHIP	100	5%	1/16W
R8010	1-260-131-11	CARBON	470K	5%	1/2W
R8011	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8012	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8013	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R8014	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W
R8015	1-216-837-11	RES-CHIP	22K	5%	1/16W
R8016	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8017	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8018	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8019	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R8020	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8021	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8022	1-216-839-11	RES-CHIP	33K	5%	1/16W
R8023	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8024	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8025	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8026	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8029	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8030	1-215-903-11	METAL OXIDE	68K	5%	2W
R8031	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8032	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8033	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8034	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8035	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R8036	1-214-800-11	METAL	2.2	1%	1/2W
R8037	1-215-903-11	METAL OXIDE	68K	5%	2W
R8038	1-216-809-11	RES-CHIP	100	5%	1/16W
R8039	1-214-800-11	METAL	2.2	1%	1/2W
R8040	1-215-913-11	METAL OXIDE	220	5%	3W
R8041	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W
R8042	1-216-826-11	RES-CHIP	2.7K	5%	1/16W
R8043	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R8044	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R8045	1-214-808-11	METAL	4.7	1%	1/2W
R8046	1-214-808-11	METAL	4.7	1%	1/2W
R8047	1-215-857-71	METAL OXIDE	10	5%	1W
R8048	1-414-189-31	INDUCTOR	100µH		
R8049	1-414-189-31	INDUCTOR	100µH		
R8050	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8051	1-214-808-11	METAL	4.7	1%	1/2W
R8053	1-214-808-11	METAL	4.7	1%	1/2W
R8055	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8056	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8057	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8058	1-216-809-11	RES-CHIP	100	5%	1/16W
R8059	1-214-808-11	METAL	4.7	1%	1/2W
R8060	1-214-808-11	METAL	4.7	1%	1/2W
R8061	1-216-390-11	METAL OXIDE	1.2	5%	3W
R8062	1-260-107-11	CARBON	4.7K	5%	1/2W
R8063	1-214-808-11	METAL	4.7	1%	1/2W
R8064	1-214-808-11	METAL	4.7	1%	1/2W
R8065	1-260-328-11	CARBON	1K	5%	1/2W
R8066	1-214-808-11	METAL	4.7	1%	1/2W
R8067	1-214-808-11	METAL	4.7	1%	1/2W
R8068	1-216-809-11	RES-CHIP	100	5%	1/16W
R8069	1-214-808-11	METAL	4.7	1%	1/2W
R8070	1-214-808-11	METAL	4.7	1%	1/2W

D

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8071	1-215-381-00	METAL	22	1%	1/4W
R8073	1-214-808-11	METAL	4.7	1%	1/2W
R8075	1-214-808-11	METAL	4.7	1%	1/2W
R8076	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8077	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8078	1-214-808-11	METAL	4.7	1%	1/2W
R8079	1-214-808-11	METAL	4.7	1%	1/2W
R8080	1-216-353-00	METAL OXIDE	2.2	5%	1W
R8081	1-214-808-11	METAL	4.7	1%	1/2W
R8082	1-214-808-11	METAL	4.7	1%	1/2W
R8083	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8084	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8085	1-214-808-11	METAL	4.7	1%	1/2W
R8086	1-214-808-11	METAL	4.7	1%	1/2W
R8087	1-249-385-11	CARBON	2.2	5%	1/4W
R8088	1-249-385-11	CARBON	2.2	5%	1/4W
R8089	1-214-808-11	METAL	4.7	1%	1/2W
R8090	1-214-808-11	METAL	4.7	1%	1/2W
R8091	1-214-808-11	METAL	4.7	1%	1/2W
R8092	1-214-808-11	METAL	4.7	1%	1/2W
R8093	1-214-808-11	METAL	4.7	1%	1/2W
R8094	1-214-808-11	METAL	4.7	1%	1/2W
R8095	1-216-801-11	RES-CHIP	22	5%	1/16W
R8096	1-216-801-11	RES-CHIP	22	5%	1/16W
R8097	1-214-808-11	METAL	4.7	1%	1/2W
R8098	1-214-808-11	METAL	4.7	1%	1/2W
R8099	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8100	1-216-475-11	METAL OXIDE	120	5%	3W
R8101	1-216-475-11	METAL OXIDE	120	5%	3W
R8102	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8103	1-216-816-11	RES-CHIP	390	5%	1/16W
R8104	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R8105	1-214-808-11	METAL	4.7	1%	1/2W
R8106	1-214-808-11	METAL	4.7	1%	1/2W
R8107	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8108	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8109	1-216-814-11	RES-CHIP	270	5%	1/16W
R8110	1-249-427-11	CARBON	6.8K	5%	1/4W
R8111	1-216-819-11	RES-CHIP	680	5%	1/16W
R8112	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R8113	1-216-475-11	METAL OXIDE	120	5%	3W
R8114	1-216-475-11	METAL OXIDE	120	5%	3W
R8115	1-216-475-11	METAL OXIDE	120	5%	3W
R8116	1-216-475-11	METAL OXIDE	120	5%	3W
R8117	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8118	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8119	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8120	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8121	1-216-809-11	RES-CHIP	100	5%	1/16W
R8123	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8124	1-249-377-11	CARBON	0.47	5%	1/4W
R8125	1-216-816-11	RES-CHIP	390	5%	1/16W
R8126	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R8128	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8129	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8130	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8131	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8132	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8133	1-216-487-11	METAL OXIDE	12K	5%	3W
R8134	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R8135	1-216-487-11	METAL OXIDE	12K	5%	3W
R8136	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8137	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8138	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8139	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R8140	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8141	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R8142	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8143	1-218-734-11	METAL CHIP	56K	0.5%	1/16W
R8144	1-216-809-11	RES-CHIP	100	5%	1/16W
R8145	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8146	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8147	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R8148	1-216-845-11	RES-CHIP	100K	5%	1/16W
R8149	1-215-905-11	METAL OXIDE	10	5%	3W
R8150	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8151	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R8152	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8153	1-218-692-11	METAL CHIP	1K	0.5%	1/16W
R8154	1-218-728-11	METAL CHIP	33K	0.5%	1/16W
R8155	1-215-469-00	METAL	100K	1%	1/4W
R8156	1-215-469-00	METAL	100K	1%	1/4W
R8157	1-218-738-11	METAL CHIP	82K	0.5%	1/16W
R8159	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8160	1-249-393-11	CARBON	10	5%	1/4W
R8161	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8163	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8164	1-218-734-11	METAL CHIP	56K	0.5%	1/16W
R8165	1-249-425-11	CARBON	4.7K	5%	1/4W
R8166	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8167	1-414-189-31	INDUCTOR	100µH		
R8168	1-216-809-11	RES-CHIP	100	5%	1/16W
R8169	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8170	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R8171	1-216-809-11	RES-CHIP	100	5%	1/16W
R8172	1-249-405-11	CARBON	100	5%	1/4W
R8173	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8174	1-249-425-11	CARBON	4.7K	5%	1/4W
R8176	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8178	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8179	1-414-189-31	INDUCTOR	100µH		
R8180	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8181	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8182	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8183	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8184	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8187	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8189	1-249-377-11	CARBON	0.47	5%	1/4W
R8190	1-215-431-00	METAL	2.7K	1%	1/4W
R8191	1-215-429-00	METAL	2.2K	1%	1/4W
R8192	1-215-449-00	METAL	15K	1%	1/4W
R8193	1-215-449-00	METAL	15K	1%	1/4W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

KDP-57XBR2/65XBR2
RM-Y185
D HC HA

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8194	1-215-449-00	METAL	15K	1%	1/4W
R8195	1-215-449-00	METAL	15K	1%	1/4W
R8196	1-249-425-11	CARBON	4.7K	5%	1/4W
R8197	1-216-809-11	RES-CHIP	100	5%	1/16W
R8198	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8201	1-249-397-11	CARBON	22	5%	1/4W
R8202	1-260-092-11	CARBON	270	5%	1/2W
R8203	1-249-377-11	CARBON	0.47	5%	1/4W
R8205	1-249-377-11	CARBON	0.47	5%	1/4W
R8206	1-249-377-11	CARBON	0.47	5%	1/4W
R8208	1-260-288-11	CARBON	0.47	5%	1/2W
R8209	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8210	1-216-809-11	RES-CHIP	100	5%	1/16W
R8211	1-215-906-11	METAL OXIDE	15	5%	3W
R8212	1-215-907-11	METAL OXIDE	22	5%	3W
R8213	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8216	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8217	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8218	1-260-123-11	CARBON	100K	5%	1/2W
R8219	1-249-377-11	CARBON	0.47	5%	1/4W
R8220	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8223	1-218-748-11	METAL CHIP	220K	0.5%	1/16W
R8224	1-260-127-11	CARBON	220K	5%	1/2W
R8225	1-260-292-11	CARBON	1	5%	1/2W
R8228	1-260-314-11	CARBON	68	5%	1/2W
R8230	1-218-751-11	METAL CHIP	300K	0.5%	1/16W

< TRANSFORMER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
T8001	1-435-142-11	TRANSFORMER, FERRITE (DFT)	
T8002	1-437-400-11	TRANSFORMER, FERRITE (HDT)	
T8003	1-437-401-11	TRANSFORMER, FERRITE (HOT)	
T8004	1-437-399-11	TRANSFORMER, FERRITE (LOT)	
T8005 ⚠	1-453-285-31	TRANSFORMER ASSY, FLY BACK	(NX-4006//X4P4)

< THERMISTOR >

REF.NO.	PART NO.	DESCRIPTION
TH8001	1-800-193-00	THERMISTOR

< VARIABLE RESISTOR >

REF.NO.	PART NO.	DESCRIPTION	
⧓ VR8001 ⚠	1-225-628-91	RES, VAR, ADJ, CERMET	5K
⧓ VR8002 ⚠	1-225-632-91	RES, VAR, ADJ, CERMET	100K

****

* A-1372-983-A HC BOARD, COMPLETE

****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1301	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN1300 *	1-564-518-11	PLUG, CONNECTOR 3P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D1300	8-719-069-55	DIODE UDZSTE-175.6B
D1301	8-719-069-55	DIODE UDZSTE-175.6B

< IC >

REF.NO.	PART NO.	DESCRIPTION
IC1300	8-742-129-00	IC SBX1971-51P

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1300	1-216-809-11	RES-CHIP	100	5%	1/16W
R1301	1-216-809-11	RES-CHIP	100	5%	1/16W

****

* A-1372-984-A HA BOARD, COMPLETE

****

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN1100 *	1-564-522-11	PLUG, CONNECTOR 7P
CN1101 *	1-564-521-11	PLUG, CONNECTOR 6P

< RESISTOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1100	1-218-682-11	METAL CHIP	390	0.5%	1/16W
R1101	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R1102	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R1103	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R1104	1-218-690-11	METAL CHIP	820	0.5%	1/16W
R1105	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R1106	1-218-696-11	METAL CHIP	1.5K	0.5%	1/16W
R1107	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R1108	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R1109	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W
R1110	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R1111	1-218-728-11	METAL CHIP	33K	0.5%	1/16W

< SWITCH >

REF.NO.	PART NO.	DESCRIPTION
S1100	1-572-198-11	SWITCH, KEYBOARD (VOLUM –)
S1101	1-572-198-11	SWITCH, KEYBOARD (VOLUM +)
S1102	1-572-198-11	SWITCH, KEYBOARD (CHANNEL –)
S1103	1-572-198-11	SWITCH, KEYBOARD (CHANNEL +)
S1104	1-572-198-11	SWITCH, KEYBOARD (TV/VIDEO)
S1105	1-572-198-11	SWITCH, KEYBOARD (SELECT)
S1106	1-572-198-11	SWITCH, KEYBOARD (➡)
S1107	1-572-198-11	SWITCH, KEYBOARD (⬇)
S1108	1-572-198-11	SWITCH, KEYBOARD (⬆)
S1109	1-572-198-11	SWITCH, KEYBOARD (⬅)
S1110	1-572-198-11	SWITCH, KEYBOARD (MENU)
S1111	1-572-198-11	SWITCH, KEYBOARD (i. LINK)
S1112	1-572-198-11	SWITCH, KEYBOARD (FLASH FOCUS)

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1372-985-A	HB BOARD, COMPLETE *******************************			
		< CAPACITOR >			
C1200	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C1201	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C1202	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C1203	1-126-960-11	ELECT	1µF	20%	50V
C1204	1-126-960-11	ELECT	1µF	20%	50V
		< CONNECTOR >			
CN1200	* 1-564-526-11	PLUG, CONNECTOR 11P			
		< JACK >			
J1200	1-565-929-11	TERMINAL BLOCK, S 3P (VIDEO2 INPUT)			
		< RESISTOR >			
R1200	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R1201	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R1202	1-216-821-11	RES-CHIP	1K	5%	1/16W
R1203	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R1204	1-216-853-11	RES-CHIP	470K	5%	1/16W
R1205	1-216-853-11	RES-CHIP	470K	5%	1/16W
		< VARISTOR >			
VD1200	1-803-974-21	VARISTOR, CHIP			
VD1201	1-803-974-21	VARISTOR, CHIP			
VD1202	1-803-974-21	VARISTOR, CHIP			
VD1203	1-803-974-21	VARISTOR, CHIP			
VD1204	1-803-974-21	VARISTOR, CHIP			
VD1205	1-803-974-21	VARISTOR, CHIP			

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1372-986-A	HD BOARD, COMPLETE *******************************			
		< CONNECTOR >			
CN1350	* 1-564-521-11	PLUG, CONNECTOR 6P			
		< DIODE >			
D1350	8-719-064-11	DIODE SPR-325MVW (STANDBY/I. LINK)			
D1351	8-719-053-43	DIODE SLR-325VCT31 (TIMER)			
		< RESISTOR >			
R1350	1-216-833-11	RES-CHIP	10K	5%	1/16W
R1351	1-216-815-11	RES-CHIP	330	5%	1/16W
		< SWITCH >			
S1350	1-571-032-11	SWITCH, PUSH (1 KEY) (POWER)			

****

REF.NO.	PART NO.	DESCRIPTION			REMARK
	* A-1373-860-A	U BOARD, COMPLETE *******************************			
		< CAPACITOR >			
C4001	1-126-960-11	ELECT	1µF	20%	50V
C4002	1-126-960-11	ELECT	1µF	20%	50V
C4003	1-126-960-11	ELECT	1µF	20%	50V
C4004	1-126-960-11	ELECT	1µF	20%	50V
C4005	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4006	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C4007	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4008	1-126-960-11	ELECT	1µF	20%	50V
C4009	1-126-960-11	ELECT	1µF	20%	50V
C4010	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4011	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C4012	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4013	1-126-960-11	ELECT	1µF	20%	50V
C4014	1-126-960-11	ELECT	1µF	20%	50V
C4015	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4016	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C4017	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C4018	1-126-960-11	ELECT	1µF	20%	50V
C4019	1-126-960-11	ELECT	1µF	20%	50V
		< CONNECTOR >			
CN4001	* 1-793-923-11	CONNECTOR, DIN (PLUG) 64P			
		< JACK >			
J4001	1-774-358-11	JACK BLOCK, PIN (HD/DVD IN 5)			
J4002	1-774-358-11	JACK BLOCK, PIN (HD/DVD IN 6)			
J4003	1-750-515-11	TERMINAL BLOCK, S 3P (VIDEO IN 1)			
J4004	1-750-515-11	TERMINAL BLOCK, S 3P (VIDEO IN 3)			
J4005	1-750-515-11	TERMINAL BLOCK, S 3P (VIDEO IN 4)			
J4006	1-750-517-11	JACK BLOCK, PIN 3P (SELECT OUT)			
J4008	1-764-143-11	JACK (CONTROL S IN)			
J4009	1-764-143-11	JACK (CONTROL S OUT)			
		< RESISTOR >			
R4001	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4002	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4003	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4004	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4005	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4006	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4007	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4008	1-218-665-11	METAL CHIP	75	0.5%	1/16W

U **K**

REF.NO.	PART NO.	DESCRIPTION			REMARK
R4009	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4010	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4011	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4012	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4013	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4014	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4015	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4016	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4017	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4018	1-216-821-11	RES-CHIP	1K	5%	1/16W
R4019	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4020	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4021	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4022	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4023	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4024	1-216-821-11	RES-CHIP	1K	5%	1/16W
R4025	1-218-665-11	METAL CHIP	75	0.5%	1/16W
R4026	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4027	1-216-853-11	RES-CHIP	470K	5%	1/16W
R4028	1-216-809-11	RES-CHIP	100	5%	1/16W
R4029	1-216-809-11	RES-CHIP	100	5%	1/16W

< VARISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
VD4001	1-803-974-21	VARISTOR, CHIP	
VD4002	1-803-974-21	VARISTOR, CHIP	
VD4003	1-803-974-21	VARISTOR, CHIP	
VD4004	1-803-974-21	VARISTOR, CHIP	
VD4005	1-803-974-21	VARISTOR, CHIP	
VD4006	1-803-974-21	VARISTOR, CHIP	
VD4007	1-803-974-21	VARISTOR, CHIP	
VD4008	1-803-974-21	VARISTOR, CHIP	
VD4009	1-803-974-21	VARISTOR, CHIP	
VD4010	1-803-974-21	VARISTOR, CHIP	
VD4011	1-803-974-21	VARISTOR, CHIP	
VD4012	1-803-974-21	VARISTOR, CHIP	
VD4013	1-803-974-21	VARISTOR, CHIP	
VD4014	1-803-974-21	VARISTOR, CHIP	
VD4015	1-803-974-21	VARISTOR, CHIP	
VD4016	1-803-974-21	VARISTOR, CHIP	
VD4017	1-803-974-21	VARISTOR, CHIP	
VD4018	1-803-974-21	VARISTOR, CHIP	
VD4019	1-803-974-21	VARISTOR, CHIP	
VD4020	1-803-974-21	VARISTOR, CHIP	
VD4021	1-803-974-21	VARISTOR, CHIP	
VD4022	1-803-974-21	VARISTOR, CHIP	
VD4023	1-803-974-21	VARISTOR, CHIP	
VD4024	1-803-974-21	VARISTOR, CHIP	
VD4025	1-803-974-21	VARISTOR, CHIP	
VD4026	1-803-974-21	VARISTOR, CHIP	
VD4027	1-803-974-21	VARISTOR, CHIP	
VD4028	1-803-974-21	VARISTOR, CHIP	
VD4029	1-803-974-21	VARISTOR, CHIP	
VD4030	1-803-974-21	VARISTOR, CHIP	
VD4033	1-803-974-21	VARISTOR, CHIP	
VD4034	1-803-974-21	VARISTOR, CHIP	

****

* A-1380-653-A K BOARD, COMPLETE
****

4-382-854-11 SCREW (M3X10), P, SW (+)

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C2101	1-137-372-11	MYLAR	0.022µF	5%	50V
C2102	1-137-372-11	MYLAR	0.022µF	5%	50V
C2103	1-136-165-00	FILM	0.1µF	5%	50V
C2104	1-136-357-11	MYLAR	680pF	5%	50V
C2105	1-136-165-00	FILM	0.1µF	5%	50V
C2106	1-136-357-11	MYLAR	680pF	5%	50V
C2107	1-136-165-00	FILM	0.1µF	5%	50V
C2108	1-136-165-00	FILM	0.1µF	5%	50V
C2109	1-136-165-00	FILM	0.1µF	5%	50V
C2112	1-126-965-91	ELECT	22µF	20%	50V
C2113	1-126-947-11	ELECT	47µF	20%	25V
C2114	1-137-368-11	MYLAR	0.0047µF	5%	50V
C2115	1-126-965-91	ELECT	22µF	20%	50V
C2116	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V
C2117	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V
C2118	1-126-933-11	ELECT	100µF	20%	16V
C2119	1-126-933-11	ELECT	100µF	20%	16V
C2120	1-126-947-11	ELECT	47µF	20%	25V
C2121	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V
C2122	1-136-165-00	FILM	0.1µF	5%	50V
C2123	1-136-161-00	FILM	0.047µF	5%	50V
C2124	1-137-367-11	MYLAR	0.0033µF	5%	50V
C2125	1-136-357-11	MYLAR	680pF	5%	50V
C2126	1-137-150-11	MYLAR	0.01µF	5%	50V
C2127	1-137-372-11	MYLAR	0.022µF	5%	50V
C2128	1-137-372-11	MYLAR	0.022µF	5%	50V
C2129	1-137-150-11	MYLAR	0.01µF	5%	50V
C2130	1-137-367-11	MYLAR	0.0033µF	5%	50V
C2131	1-137-367-11	MYLAR	0.0033µF	5%	50V
C2132	1-136-357-11	MYLAR	680pF	5%	50V
C2133	1-137-367-11	MYLAR	0.0033µF	5%	50V
C2134	1-136-177-00	FILM	1µF	5%	50V
C2135	1-137-437-11	MYLAR	0.0056µF	5%	50V
C2136	1-136-495-11	FILM	0.068µF	5%	50V
C2137	1-136-175-00	FILM	0.68µF	5%	50V
C2138	1-126-964-11	ELECT	10µF	20%	50V
C2139	1-136-165-00	FILM	0.1µF	5%	50V
C2140	1-136-165-00	FILM	0.1µF	5%	50V
C2141	1-126-964-11	ELECT	10µF	20%	50V
C2142	1-136-165-00	FILM	0.1µF	5%	50V
C2143	1-136-165-00	FILM	0.1µF	5%	50V
C2144	1-136-177-00	FILM	1µF	5%	50V
C2145	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V
C2146	1-126-934-11	ELECT	220µF	20%	16V
C2147	1-136-169-00	FILM	0.22µF	5%	50V
C2148	1-136-169-00	FILM	0.22µF	5%	50V
C2149	1-126-963-11	ELECT	4.7µF	20%	50V

K

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2150	1-126-963-11	ELECT	4.7µF	20%	50V	
C2151	1-136-169-00	FILM	0.22µF	5%	50V	
C2152	1-136-169-00	FILM	0.22µF	5%	50V	
C2153	1-136-165-00	FILM	0.1µF	5%	50V	
C2154	1-136-161-00	FILM	0.047µF	5%	50V	
C2155	1-136-161-00	FILM	0.047µF	5%	50V	
C2156	1-136-165-00	FILM	0.1µF	5%	50V	
C2157	1-136-165-00	FILM	0.1µF	5%	50V	
C2158	1-126-965-91	ELECT	22µF	20%	50V	
C2159	1-126-941-11	ELECT	470µF	20%	25V	
C2160	1-126-947-11	ELECT	47µF	20%	25V	
C2161	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2162	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2163	1-126-947-11	ELECT	47µF	20%	25V	
C2164	1-126-947-11	ELECT	47µF	20%	25V	
C2165	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2166	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2167	1-126-947-11	ELECT	47µF	20%	25V	
C2168	1-126-947-11	ELECT	47µF	20%	25V	
C2169	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2170	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2171	1-126-947-11	ELECT	47µF	20%	25V	
C2172	1-128-549-11	ELECT	3300µF	20%	35V	
C2173	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C2174	1-128-549-11	ELECT	3300µF	20%	35V	
C2175	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C2176	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C2177	1-136-177-00	FILM	1µF	5%	50V	
C2178	1-126-964-11	ELECT	10µF	20%	50V	
C2179	1-126-964-11	ELECT	10µF	20%	50V	
C2180	1-126-947-11	ELECT	47µF	20%	25V	
C2181	1-126-947-11	ELECT	47µF	20%	25V	
C2182	1-137-367-11	MYLAR	0.0033µF	5%	50V	
C2183	1-136-161-00	FILM	0.047µF	5%	50V	
C2190	1-126-964-11	ELECT	10µF	20%	50V	
C2191	1-126-947-11	ELECT	47µF	20%	25V	
C2192	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2193	1-126-964-11	ELECT	10µF	20%	50V	
C2194	1-126-964-11	ELECT	10µF	20%	50V	
C2195	1-126-964-11	ELECT	10µF	20%	50V	
C2196	1-126-964-11	ELECT	10µF	20%	50V	
C2197	1-136-177-00	FILM	1µF	5%	50V	
C2198	1-136-177-00	FILM	1µF	5%	50V	
C2199	1-126-964-11	ELECT	10µF	20%	50V	
C2201	1-136-177-00	FILM	1µF	5%	50V	
C2205	1-136-177-00	FILM	1µF	5%	50V	
C2207	1-136-177-00	FILM	1µF	5%	50V	
C2209	1-136-177-00	FILM	1µF	5%	50V	
C2211	1-136-177-00	FILM	1µF	5%	50V	
C2213	1-136-177-00	FILM	1µF	5%	50V	
C2301	1-126-965-91	ELECT	22µF	20%	50V	
C2302	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2303	1-126-947-11	ELECT	47µF	20%	25V	
C2304	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C2305	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C2306	1-126-964-11	ELECT	10µF	20%	50V	

REF.NO.	PART NO.	DESCRIPTION				REMARK
C2307	1-126-964-11	ELECT	10µF	20%	50V	
C2308	1-126-964-11	ELECT	10µF	20%	50V	
C2309	1-126-964-11	ELECT	10µF	20%	50V	
C2310	1-136-169-00	FILM	0.22µF	5%	50V	
C2311	1-136-165-00	FILM	0.1µF	5%	50V	
C2312	1-136-165-00	FILM	0.1µF	5%	50V	
C2313	1-136-169-00	FILM	0.22µF	5%	50V	
C2314	1-126-965-91	ELECT	22µF	20%	50V	
C2315	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2316	1-126-947-11	ELECT	47µF	20%	25V	
C2317	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C2318	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C2319	1-126-964-11	ELECT	10µF	20%	50V	
C2320	1-126-964-11	ELECT	10µF	20%	50V	
C2321	1-126-964-11	ELECT	10µF	20%	50V	
C2322	1-126-964-11	ELECT	10µF	20%	50V	
C2323	1-136-165-00	FILM	0.1µF	5%	50V	
C2324	1-136-165-00	FILM	0.1µF	5%	50V	
C2325	1-136-165-00	FILM	0.1µF	5%	50V	
C2326	1-136-165-00	FILM	0.1µF	5%	50V	
C2327	1-126-965-91	ELECT	22µF	20%	50V	
C2328	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2329	1-126-947-11	ELECT	47µF	20%	25V	
C2330	1-137-366-11	MYLAR	0.0022µF	5%	50V	
C2331	1-126-947-11	ELECT	47µF	20%	25V	
C2332	1-126-964-11	ELECT	10µF	20%	50V	
C2333	1-126-947-11	ELECT	47µF	20%	25V	
C2334	1-126-964-11	ELECT	10µF	20%	50V	
C2335	1-126-964-11	ELECT	10µF	20%	50V	
C2336	1-136-165-00	FILM	0.1µF	5%	50V	
C2337	1-136-165-00	FILM	0.1µF	5%	50V	
C2338	1-136-165-00	FILM	0.1µF	5%	50V	
C2339	1-136-165-00	FILM	0.1µF	5%	50V	
C2340	1-126-964-11	ELECT	10µF	20%	50V	
C2341	1-126-964-11	ELECT	10µF	20%	50V	
C2342	1-136-165-00	FILM	0.1µF	5%	50V	
C2343	1-137-367-11	MYLAR	0.0033µF	5%	50V	
C2344	1-136-161-00	FILM	0.047µF	5%	50V	
C2345	1-126-947-11	ELECT	47µF	20%	25V	
C2346	1-126-964-11	ELECT	10µF	20%	50V	
C2347	1-126-947-11	ELECT	47µF	20%	25V	
C2348	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2350	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2352	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2354	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2356	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2357	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2358	1-162-970-11	CERAMIC CHIP	0.01µF	10%	16V	
C2360	1-126-947-11	ELECT	47µF	20%	25V	
C2621	1-126-960-11	ELECT	1µF	20%	50V	
C2622	1-136-165-00	FILM	0.1µF	5%	50V	
C2623	1-126-960-11	ELECT	1µF	20%	50V	
C2624	1-126-960-11	ELECT	1µF	20%	50V	
C2625	1-126-947-11	ELECT	47µF	20%	25V	
C2626	1-126-947-11	ELECT	47µF	20%	25V	
C2627	1-136-165-00	FILM	0.1µF	5%	50V	

REF.NO.	PART NO.	DESCRIPTION	REMARK
C2628	1-136-165-00	FILM 0.1µF 5% 50V	
C2629	1-136-165-00	FILM 0.1µF 5% 50V	
C2630	1-136-165-00	FILM 0.1µF 5% 50V	
C2631	1-104-665-11	ELECT 100µF 20% 25V	
C2632	1-104-665-11	ELECT 100µF 20% 25V	
C2633	1-126-960-11	ELECT 1µF 20% 50V	
C2634	1-126-963-11	ELECT 4.7µF 20% 50V	
C2635	1-126-960-11	ELECT 1µF 20% 50V	
C2636	1-126-960-11	ELECT 1µF 20% 50V	
C2637	1-126-947-11	ELECT 47µF 20% 25V	
C2638	1-126-947-11	ELECT 47µF 20% 25V	
C2639	1-136-165-00	FILM 0.1µF 5% 50V	
C2640	1-136-165-00	FILM 0.1µF 5% 50V	
C2641	1-136-165-00	FILM 0.1µF 5% 50V	
C2642	1-136-165-00	FILM 0.1µF 5% 50V	
C2643	1-126-960-11	ELECT 1µF 20% 50V	
C2644	1-136-165-00	FILM 0.1µF 5% 50V	
C2645	1-136-165-00	FILM 0.1µF 5% 50V	
C2646	1-136-165-00	FILM 0.1µF 5% 50V	
C2647	1-126-947-11	ELECT 47µF 20% 25V	
C2648	1-126-960-11	ELECT 1µF 20% 50V	
C2649	1-126-963-11	ELECT 4.7µF 20% 50V	
C2650	1-126-964-11	ELECT 10µF 20% 50V	
C2651	1-126-964-11	ELECT 10µF 20% 50V	
C2652	1-126-947-11	ELECT 47µF 20% 25V	
C2654	1-126-964-11	ELECT 10µF 20% 50V	
C2655	1-126-960-11	ELECT 1µF 20% 50V	
C2656	1-126-964-11	ELECT 10µF 20% 50V	
C2657	1-126-964-11	ELECT 10µF 20% 50V	
C2658	1-126-960-11	ELECT 1µF 20% 50V	
C2659	1-126-964-11	ELECT 10µF 20% 50V	

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN2101 *	1-564-511-11	PLUG, CONNECTOR 8P	
CN2102 *	1-564-507-11	PLUG, CONNECTOR 4P	
CN2103 *	1-764-333-11	PLUG, CONNECTOR 10P	
CN2104 *	1-691-757-11	PIN, CONNECTOR (PC BOARD) 8P	
CN2602 *	1-691-135-11	PIN, CONNECTOR (PC BOARD) 4P	
CN2603 *	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P	

< DIODE >

REF.NO.	PART NO.	DESCRIPTION	REMARK
D2102	8-719-404-50	DIODE MA111-TX	
D2103	8-719-404-50	DIODE MA111-TX	
D2104	8-719-404-50	DIODE MA111-TX	
D2105	8-719-404-50	DIODE MA111-TX	
D2106	8-719-404-50	DIODE MA111-TX	
D2107	8-719-404-50	DIODE MA111-TX	
D2108	8-719-404-50	DIODE MA111-TX	
D2109	8-719-404-50	DIODE MA111-TX	
D2110	8-719-404-50	DIODE MA111-TX	
D2111	8-719-404-50	DIODE MA111-TX	
D2113	8-719-404-50	DIODE MA111-TX	
D2307	8-719-404-50	DIODE MA111-TX	
D2308	8-719-404-50	DIODE MA111-TX	
D2309	8-719-404-50	DIODE MA111-TX	
D2601	8-719-404-50	DIODE MA111-TX	
D2602	8-719-083-85	DIODE UDZS-TE17-22B	
D2603	8-719-083-85	DIODE UDZS-TE17-22B	
D2604	8-719-083-85	DIODE UDZS-TE17-22B	
D2605	8-719-083-85	DIODE UDZS-TE17-22B	
D2606	8-719-083-85	DIODE UDZS-TE17-22B	
D2607	8-719-083-85	DIODE UDZS-TE17-22B	
D2613	8-719-404-50	DIODE MA111-TX	
D2614	8-719-083-85	DIODE UDZS-TE17-22B	
D2615	8-719-083-85	DIODE UDZS-TE17-22B	
D2616	8-719-083-85	DIODE UDZS-TE17-22B	
D2617	8-719-083-85	DIODE UDZS-TE17-22B	
D2618	8-719-404-50	DIODE MA111-TX	
D2619	8-719-083-85	DIODE UDZS-TE17-22B	
D2620	8-719-083-85	DIODE UDZS-TE17-22B	
D2622	8-719-977-28	DIODE DTZ10B	
D2623	8-719-977-28	DIODE DTZ10B	
D2624	8-719-977-28	DIODE DTZ10B	
D2625	8-719-977-28	DIODE DTZ10B	
D2626	8-719-977-28	DIODE DTZ10B	
D2627	8-719-977-28	DIODE DTZ10B	
D2628	8-719-977-28	DIODE DTZ10B	
D2629	8-719-977-28	DIODE DTZ10B	
D2630	8-719-977-28	DIODE DTZ10B	
D2631	8-719-977-28	DIODE DTZ10B	

< IC >

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC2101	6-700-393-01	IC NJW1106FC2	
IC2102	8-759-231-53	IC TA7805S	
IC2103	8-759-098-24	IC PQ30RV11	
IC2104	8-759-231-58	IC TA7812S	
IC2107	8-759-100-96	IC µPC4558G2	
IC2108	8-759-100-96	IC µPC4558G2	
IC2301	8-759-544-72	IC TDA7312	
IC2302	8-759-544-72	IC TDA7312	
IC2303	8-759-544-72	IC TDA7312	
IC2304	8-759-100-96	IC µPC4558G2	
IC2305	8-759-100-96	IC µPC4558G2	
IC2601	8-759-190-89	IC TDA7265	
IC2602	8-759-190-89	IC TDA7265	
IC2603	8-759-072-99	IC TDA2052	
IC2605	8-759-100-96	IC µPC4558G2	

< JACK >

REF.NO.	PART NO.	DESCRIPTION	REMARK
J2601	1-785-083-21	JACK BLOCK, PIN 2P (AUDIO OUT L FIX/VAR)	
J2602	1-793-446-11	JACK, PIN 1P (SUB WOOFER OUT)	
J2603	1-785-083-11	JACK BLOCK, PIN 2P (AUDIO OUT R FIX/VAR)	

< TRANSISTOR >

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q2101	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q2102	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q2103	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				
Q2104	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2105	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				
Q2606	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2607	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2608	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2609	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2610	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				
Q2611	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2612	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2613	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				
Q2801	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2802	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2803	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2804	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2805	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2806	8-729-422-27	TRANSISTOR 2SD601A-Q				
Q2807	8-729-422-27	TRANSISTOR 2SD601A-Q				
	< RESISTOR >					
R2101	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2102	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2103	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W	
R2104	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2105	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2106	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W	
R2109	1-216-861-11	RES-CHIP	2.2M	5%	1/16W	
R2110	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R2111	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2112	1-216-857-11	RES-CHIP	1M	5%	1/16W	
R2113	1-216-836-11	RES-CHIP	18K	5%	1/16W	
R2114	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2115	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2116	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W	
R2117	1-218-713-11	METAL CHIP	7.5K	0.5%	1/16W	
R2118	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2119	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2120	1-218-725-11	METAL CHIP	24K	0.5%	1/16W	
R2121	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2122	1-216-851-11	RES-CHIP	330K	5%	1/16W	
R2123	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2124	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2125	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2126	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R2127	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2128	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2129	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2133	1-216-477-11	METAL OXIDE	270	5%	3W	
R2134	1-216-475-11	METAL OXIDE	120	5%	3W	
R2135	1-216-475-11	METAL OXIDE	120	5%	3W	
R2136	1-216-864-11	SHORT	0			
R2138	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2139	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2142	1-216-864-11	SHORT	0			
R2144	1-216-864-11	SHORT	0			
R2146	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2147	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2148	1-216-861-11	RES-CHIP	2.2M	5%	1/16W	
R2149	1-216-851-11	RES-CHIP	330K	5%	1/16W	
R2150	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2151	1-218-682-11	METAL CHIP	390	0.5%	1/16W	
R2152	1-218-716-11	METAL CHIP	10K	0.5%	1/16W	
R2153	1-218-706-11	METAL CHIP	3.9K	0.5%	1/16W	
R2154	1-216-836-11	RES-CHIP	18K	5%	1/16W	
R2155	1-216-836-11	RES-CHIP	18K	5%	1/16W	
R2156	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2157	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2158	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2159	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2160	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2161	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2162	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2163	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2164	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2165	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2166	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2167	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R2168	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2169	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2170	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2171	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2182	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2183	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2184	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2185	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2186	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2187	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2188	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2189	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R2190	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R2191	1-216-835-11	RES-CHIP	15K	5%	1/16W	
R2192	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2193	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R2224	1-216-864-11	SHORT	0			
R2226	1-216-864-11	SHORT	0			
R2228	1-216-864-11	SHORT	0			
R2230	1-216-864-11	SHORT	0			
R2232	1-216-864-11	SHORT	0			
R2234	1-216-864-11	SHORT	0			
R2301	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	
R2302	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	
R2303	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2304	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2305	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R2306	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R2307	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2308	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2309	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R2310	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R2311	1-216-809-11	RES-CHIP	100	5%	1/16W	
R2312	1-216-809-11	RES-CHIP	100	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R2313	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2314	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2315	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2316	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2317	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2318	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2319	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2320	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2321	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2322	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2323	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2601	1-216-801-11	RES-CHIP	22	5%	1/16W
R2602	1-216-801-11	RES-CHIP	22	5%	1/16W
R2604	1-216-815-11	RES-CHIP	330	5%	1/16W
R2605	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2606	1-216-815-11	RES-CHIP	330	5%	1/16W
R2607	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2608	1-216-845-11	RES-CHIP	100K	5%	1/16W
R2609	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2610	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2611	1-216-839-11	RES-CHIP	33K	5%	1/16W
R2612	1-249-389-11	CARBON	4.7	5%	1/4W
R2613	1-249-389-11	CARBON	4.7	5%	1/4W
R2614	1-216-817-11	RES-CHIP	470	5%	1/16W
R2615	1-216-817-11	RES-CHIP	470	5%	1/16W
R2616	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2617	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2618	1-216-817-11	RES-CHIP	470	5%	1/16W
R2619	1-216-817-11	RES-CHIP	470	5%	1/16W
R2620	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2621	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2622	1-216-817-11	RES-CHIP	470	5%	1/16W
R2623	1-216-817-11	RES-CHIP	470	5%	1/16W
R2626	1-216-817-11	RES-CHIP	470	5%	1/16W
R2632	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2633	1-216-845-11	RES-CHIP	100K	5%	1/16W
R2634	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2635	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2636	1-216-839-11	RES-CHIP	33K	5%	1/16W
R2637	1-216-809-11	RES-CHIP	100	5%	1/16W
R2638	1-216-809-11	RES-CHIP	100	5%	1/16W
R2640	1-216-817-11	RES-CHIP	470	5%	1/16W
R2641	1-216-817-11	RES-CHIP	470	5%	1/16W
R2642	1-218-725-11	METAL CHIP	24K	0.5%	1/16W
R2643	1-218-725-11	METAL CHIP	24K	0.5%	1/16W
R2645	1-249-389-11	CARBON	4.7	5%	1/4W
R2646	1-249-389-11	CARBON	4.7	5%	1/4W
R2647	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2648	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2649	1-216-834-11	RES-CHIP	12K	5%	1/16W
R2650	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2651	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2652	1-216-809-11	RES-CHIP	100	5%	1/16W
R2653	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2654	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2655	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2656	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2657	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2659	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2660	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2662	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2663	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2664	1-216-801-11	RES-CHIP	22	5%	1/16W
R2665	1-216-839-11	RES-CHIP	33K	5%	1/16W
R2666	1-216-815-11	RES-CHIP	330	5%	1/16W
R2667	1-216-839-11	RES-CHIP	33K	5%	1/16W
R2668	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2669	1-249-389-11	CARBON	4.7	5%	1/4W
R2670	1-216-838-11	RES-CHIP	27K	5%	1/16W
R2671	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2672	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
R2673	1-216-864-11	SHORT	0		
R2674	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R2675	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2676	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2677	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2678	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2679	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2680	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2681	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2682	1-216-834-11	RES-CHIP	12K	5%	1/16W
R2683	1-216-834-11	RES-CHIP	12K	5%	1/16W
R2684	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2685	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2686	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2687	1-216-817-11	RES-CHIP	470	5%	1/16W
R2688	1-216-843-11	RES-CHIP	68K	5%	1/16W
R2689	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R2801	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2802	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2803	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2804	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2805	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2806	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2807	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2808	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2809	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2810	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2811	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2812	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2813	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2814	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2901	1-216-817-11	RES-CHIP	470	5%	1/16W
R2902	1-216-817-11	RES-CHIP	470	5%	1/16W
	< TERMINAL BOARD >				
TB2601	1-694-442-11	TERMINAL, PUSH (REAR SPEAKER OUT)			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	< CRYSTAL >		
X2101	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
	* A-1391-148-A	S BOARD, COMPLETE	
	< CONNECTOR >		
CN3001	* 1-564-506-11	PLUG, CONNECTOR 3P	
	< DIODE >		
D3001	8-719-109-89	DIODE RD5.6ESB2	
	< SWITCH >		
S3002	1-756-063-21	BATTERY, SOLAR	
		Q-BOX ASSEMBLY	
	T-9986-079-1	Q-BOX, COMPLETE (KDP-57)	
	T-9986-079-2	Q-BOX, COMPLETE (KDP-65)	
		MISCELLANEOUS	
	⚠ 1-223-925-31	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)	
	⚠ 1-451-535-11	COIL ASSY, VM	
	⚠ 1-451-537-11	DEFLECTION YOKE	
	⚠ 1-453-285-31	TRANSFORMER ASSY, FLYBACK (NX-4006//X4P)	
	1-500-603-11	CLAMP, FERRITE	
	1-529-830-12	SPEAKER (10CM)	
	1-529-831-11	SPEAKER (16CM)	
	1-529-832-11	SPEAKER (10CM)	
	1-543-653-21	CORE ASSY, BEAD (DIVISION TYPE)	
	1-543-982-11	CORE, FERRITE	
	* 1-556-945-21	CABLE, P-P	
	* 1-557-056-31	CABLE, P-P	
	1-757-970-11	CORD WITH CONNECTOR (F-TYPE)	
	⚠ 1-783-595-11	CORD, NOISE FILTER WITH POWER	
	1-786-183-11	SWITCH, ANTENNA	
	⚠ 8-733-620-05	PICTURE TUBE 07MVC21 (G)-L (KDP-57)	
	⚠ 8-733-624-05	PICTURE TUBE 07MVC41 (B)-L (KDP-57)	
	⚠ 8-733-625-05	PICTURE TUBE 07MVC41 (R)-L (KDP-57)	
	⚠ 8-733-626-05	PICTURE TUBE 07MVC5 (G)-L (KDP-65)	
	⚠ 8-733-627-05	PICTURE TUBE 07MVC5 (B)-L (KDP-65)	
	⚠ 8-733-628-05	PICTURE TUBE 07MVC5 (R)-L (KDP-65)	
	⚠ 8-598-955-31	BLOCK ASSY, HIGH-VOLTAGE (HVB-1031)	

REF.NO.	PART NO.	DESCRIPTION	REMARK
	ACCESSORIES & PACKING MATERIALS		
	4-084-917-11	MANUAL, INSTRUCTION	
	* 4-042-463-01	SHEET, PROTECTION	
	* 4-070-327-01	BAG, PROTECTION (KDP-65)	
	* 4-076-420-01	BAG, PROTECTION (KDP-57)	
	* 4-076-824-01	CUSHION (UPPER) (ASSY) (KDP-65)	
	* 4-076-825-01	CUSHION (LOWER) (ASSY) (KDP-65)	
	* 4-076-830-01	INDIVIDUAL CARTON (KDP-65)	
	* 4-076-831-01	TRAY (KDP-65)	
	* 4-076-834-01	CUSHION (UPPER) (ASSY) (KDP-57)	
	* 4-076-835-01	CUSHION (LOWER) (ASSY) (KDP-57)	
	* 4-076-840-01	INDIVIDUAL CARTON (KDP-57)	
	* 4-076-841-01	TRAY (KDP-57)	
		REMOTE COMMANDER	
	1-476-689-11	REMOTE COMMANDER (RM-Y185)	

Sony Corporation
HNC. HVC. Projection Display Business Div

9-965-432-04

English
2001GA05-1
© 2001. 7

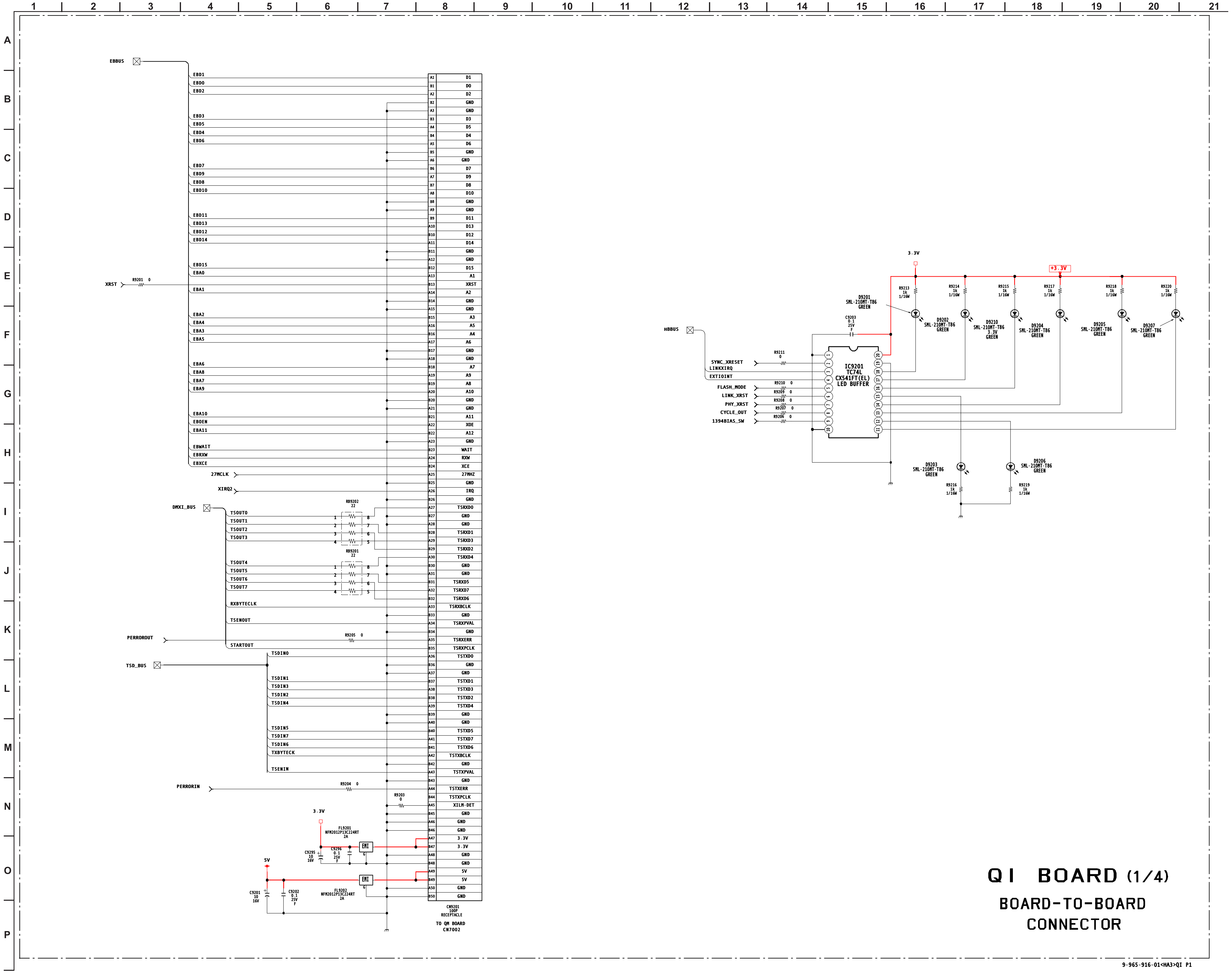
Q-BOX ASSEMBLY

Note: The Q-box assembly is not field repairable and cannot be ordered independently. If service is required, use the following part number to order a replacement Q-box which includes the complete QM and QI board assemblies.

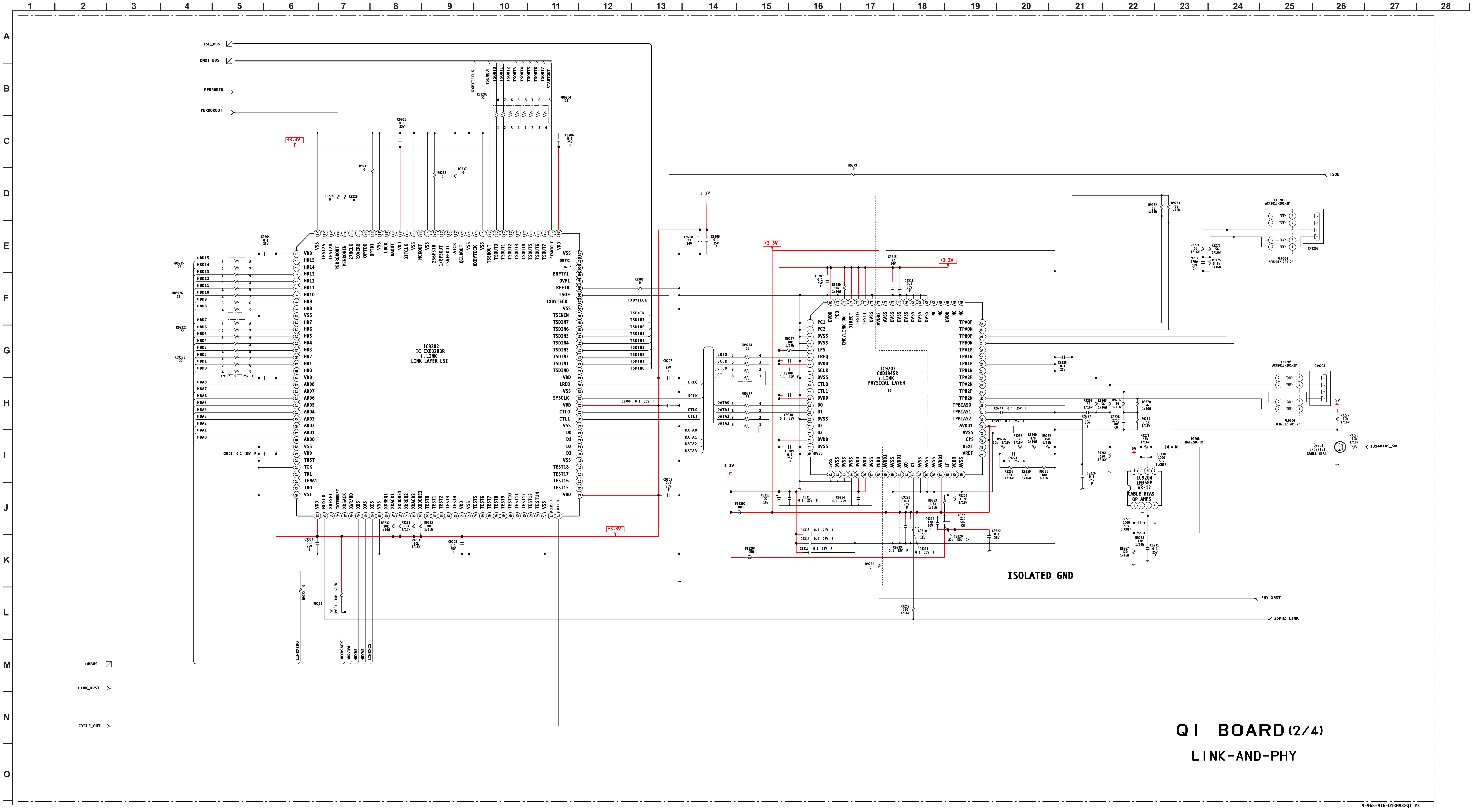
T-9986-079-1 Q-BOX, COMPLETE (KDP-57)
T-9986-079-2 Q-BOX, COMPLETE (KDP-65)

- **Schematic Diagrams**
- **Printed Wiring Boards**
- **Electrical Parts List**

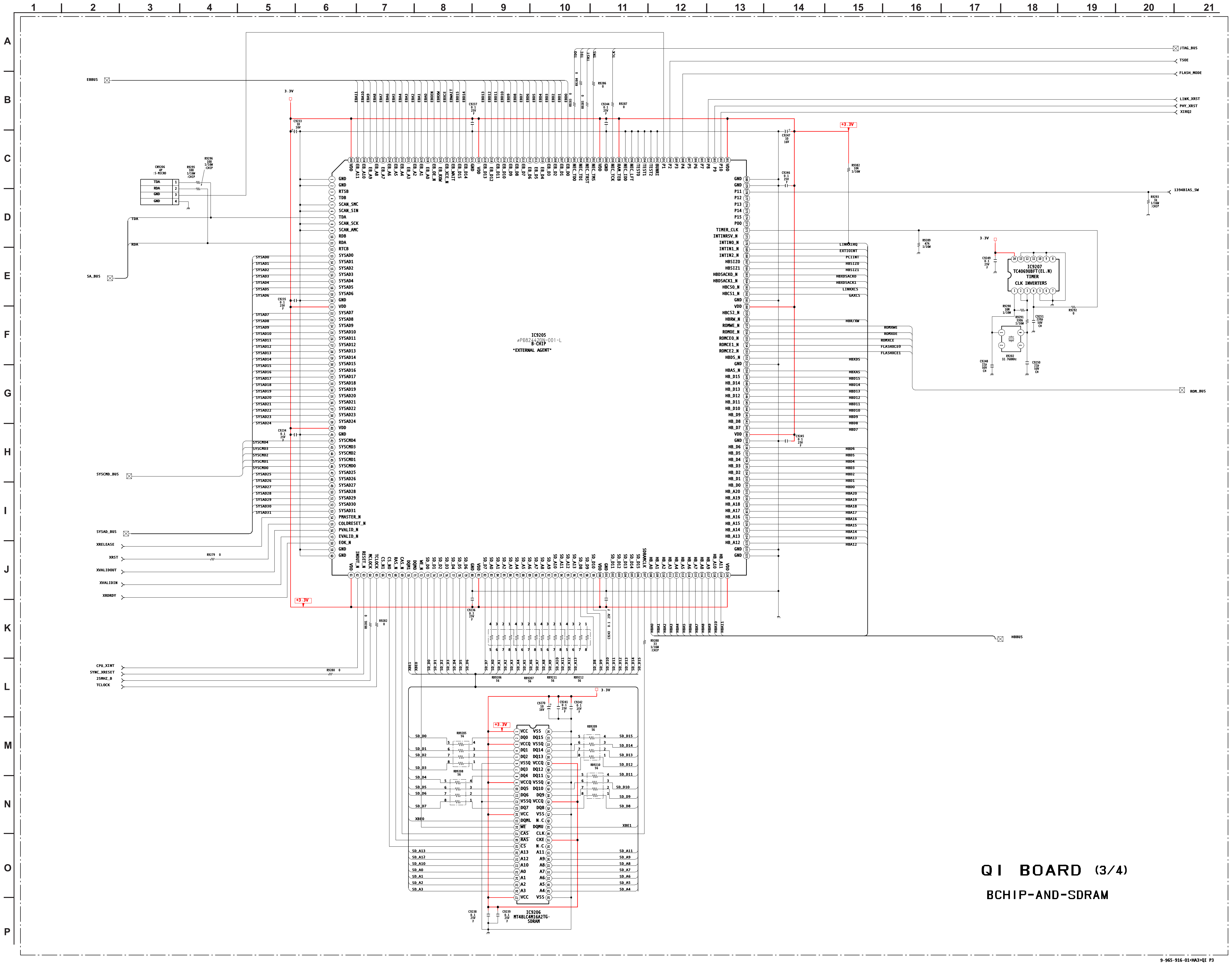
QI BOARD SCHEMATIC DIAGRAM (1 OF 4)


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
EBBUS
EBD1
EBD0
EBD2
EBD3
EBD5
EBD4
EBD6
EBD7
EBD9
EBD8
EBD10
EBD11
EBD13
EBD12
EBD14
EBD15
EBA0
XRST
R9201 0
EBA1
EBA2
EBA4
EBA3
EBA5
EBA6
EBA8
EBA7
EBA9
EBA10
EBOEN
EBA11
EBWAIT
EBRXW
EBXCE
27MCLK
XIRQ2
DMXI_BUS
TSOUT0
TSOUT1
TSOUT2
TSOUT3
RB9202 22
RB9201 22
TSOUT4
TSOUT5
TSOUT6
TSOUT7
RXBYTECLK
TSENOUT
PERROROUT
R9205 0
STARTOUT
TSD_BUS
TSDIN0
TSDIN1
TSDIN3
TSDIN2
TSDIN4
TSDIN5
TSDIN7
TSDIN6
TXBYTECK
TSENIN
PERRORIN
R9204 0
R9203 0
3.3V
FL9201 NFM2012P13C224RT 2A
C9295 10 16V
C9296 0.1 25V F
EMI
G
5V
C9201 10 16V
C9202 0.1 25V F
FL9202 NFM2012P13C224RT 2A
A1 D1
B1 D0
A2 D2
B2 GND
A3 GND
B3 D3
A4 D5
B4 D4
A5 D6
B5 GND
A6 GND
B6 D7
A7 D9
B7 D8
A8 D10
B8 GND
A9 GND
B9 D11
A10 D13
B10 D12
A11 D14
B11 GND
A12 GND
B12 D15
A13 A1
B13 XRST
A14 A2
B14 GND
A15 GND
B15 A3
A16 A5
B16 A4
A17 A6
B17 GND
A18 GND
B18 A7
A19 A9
B19 A8
A20 A10
B20 GND
A21 GND
B21 A11
A22 XOE
B22 A12
A23 GND
B23 WAIT
A24 RXW
B24 XCE
A25 27MHZ
B25 GND
A26 IRQ
B26 GND
A27 TSRXD0
B27 GND
A28 GND
B28 TSRXD1
A29 TSRXD3
B29 TSRXD2
A30 TSRXD4
B30 GND
A31 GND
B31 TSRXD5
A32 TSRXD7
B32 TSRXD6
A33 TSRXBCLK
B33 GND
A34 TSRXPVAL
B34 GND
A35 TSRXERR
B35 TSRXPCLK
A36 TSTXD0
B36 GND
A37 GND
B37 TSTXD1
A38 TSTXD3
B38 TSTXD2
A39 TSTXD4
B39 GND
A40 GND
B40 TSTXD5
A41 TSTXD7
B41 TSTXD6
A42 TSTXBCLK
B42 GND
A43 TSTXPVAL
B43 GND
A44 TSTXERR
B44 TSTXPCLK
A45 XILM-DET
B45 GND
A46 GND
B46 GND
A47 3.3V
B47 3.3V
A48 GND
B48 GND
A49 5V
B49 5V
A50 GND
B50 GND
CN9201 100P RECEPTACLE
TO QM BOARD CN7002
3.3V
+3.3V
HBBUS
C9203 0.1 25V F
D9201 SML-210MT-T86 GREEN
R9213 1k 1/16W
R9214 1k 1/16W
R9215 1k 1/16W
R9217 1k 1/16W
R9218 1k 1/16W
R9220 1k 1/16W
D9202 SML-210MT-T86 GREEN
D9210 SML-210MT-T86 3.3V GREEN
D9204 SML-210MT-T86 GREEN
D9205 SML-210MT-T86 GREEN
D9207 SML-210MT-T86 GREEN
R9211 0
SYNC_XRESET
LINKXIRQ
EXTIOINT
FLASH_MODE
LINK_XRST
PHY_XRST
CYCLE_OUT
1394BIAS_SW
R9210 0
R9209 0
R9208 0
R9207 0
R9206 0
IC9201 TC74L CX541FT(EL) LED BUFFER
D9203 SML-210MT-T86 GREEN
D9206 SML-210MT-T86 GREEN
R9216 1k 1/16W
R9219 1k 1/16W
QI BOARD (1/4)
BOARD-TO-BOARD CONNECTOR
9-965-916-01<HA3>QI P1

QI BOARD SCHEMATIC DIAGRAM (2 OF 4)

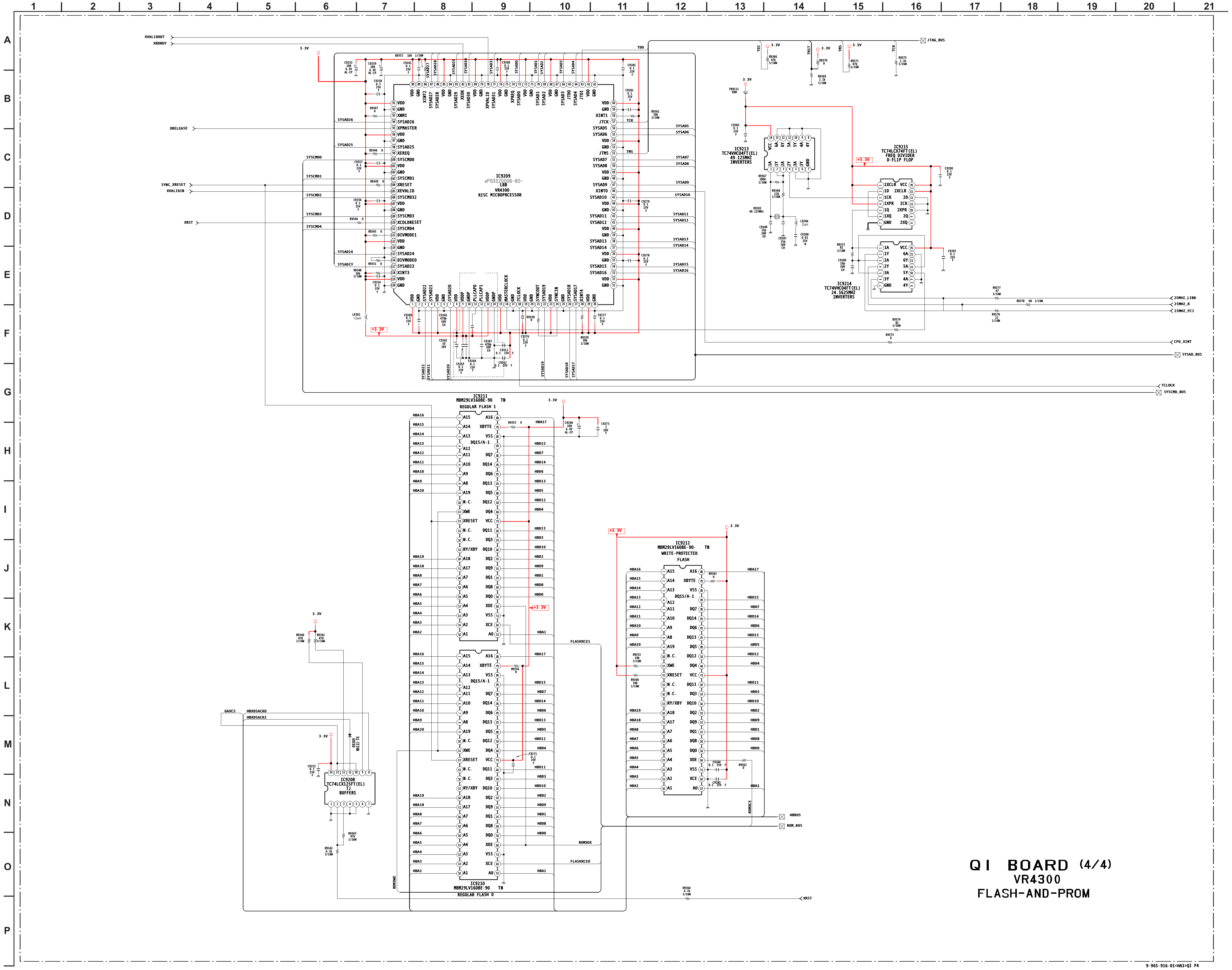

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
TSD_BUS
DMXI_BUS
PERRORIN
PERROROUT
HBBUS
LINK_XRST
CYCLE_OUT
+3.3V
3.3V
5V
IC9202
IC CXD3203R
i.LINK
LINK LAYER LSI
IC9203
CXD1945R
i.LINK
PHYSICAL LAYER
IC
IC9204
LM358P
WR-12
CABLE BIAS
OP AMPS
Q9201
2SD2216J
CABLE BIAS
FL9203
FL9204
FL9205
FL9206
ACM2012-201-2P
CN9203
CN9204
TSOE
PHY_XRST
25MHZ_LINK
1394BIAS_SW
ISOLATED_GND
QI BOARD (2/4)
LINK-AND-PHY
9-965-916-01<HA3>QI P2

QI BOARD SCHEMATIC DIAGRAM (3 OF 4)



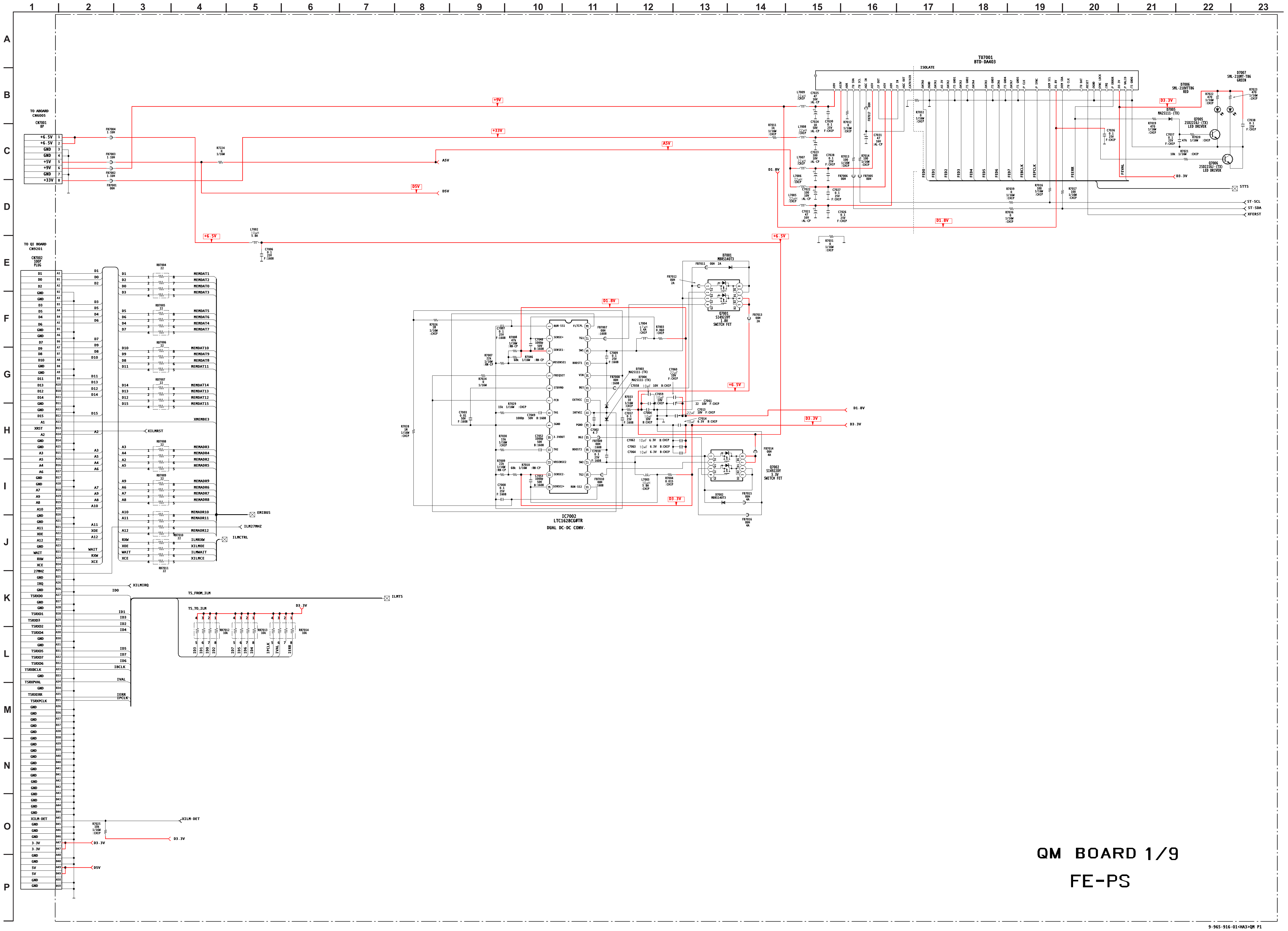
EBBUS
SA_BUS
SYSCMD_BUS
SYSAD_BUS
XRELEASE
XRST
XVALIDOUT
XVALIDIN
XRDRDY
CPU_XINT
SYNC_XRESET
25MHZ_B
TCLOCK
JTAG_BUS
TSOE
FLASH_MODE
LINK_XRST
PHY_XRST
XIRQ2
1394BIAS_SW
ROM_BUS
HBBUS
3.3V
+3.3V
IC9205
µPD82442GN-001-L
B-CHIP
"EXTERNAL AGENT"
IC9206
MT48LC4M16A2TG-
SDRAM
IC9207
TC4069UBFT(EL,N)
TIMER
CLK INVERTERS
X9202
32.768KHz
R9290
10M
1/16W
R9291
330k
1/16W
R9292
0
C9249
0.1
25V
F
C9251
220p
50V
CH
C9248
22p
50V
CH
C9250
22p
50V
CH
C9238
0.1
25V
F
C9239
0.1
25V
F
QI BOARD (3/4)
BCHIP-AND-SDRAM
9-965-916-01<HA3>QI P3

QI BOARD SCHEMATIC DIAGRAM (4 OF 4)



XVALIDOUT
XRRDY
XRELEASE
SYNC_XRESET
XVALIDIN
XRST
IC9209
PB5020006-80-
LBB
VR4300
RISC MICROPROCESSOR
JTAG_BUS
IC9213
TC74VHC04FT(EL)
49.125MHZ
INVERTERS
IC9215
TC74LCX74FT(EL)
FREQ DIVIDER
D-FLIP FLOP
IC9214
TC74VHC04FT(EL)
24.5625MHZ
INVERTERS
25MHZ_LINK
25MHZ_B
25MHZ_PCI
CPU_XINT
SYSAD_BUS
TCLOCK
SYSCMD_BUS
IC9211
MBM29LV160BE-90 TN
REGULAR FLASH 1
IC9212
MBM29LV160BE-90- TN
WRITE-PROTECTED
FLASH
IC9210
MBM29LV160BE-90 TN
REGULAR FLASH 0
IC9208
TC74LCX125FT(EL)
T2
BUFFERS
FLASHXCE1
FLASHXCE0
ROMXOE
HBBUS
ROM_BUS
XRST
+3.3V
QI BOARD (4/4)
VR4300
FLASH-AND-PROM
9-965-916-01<HA3>QI P4

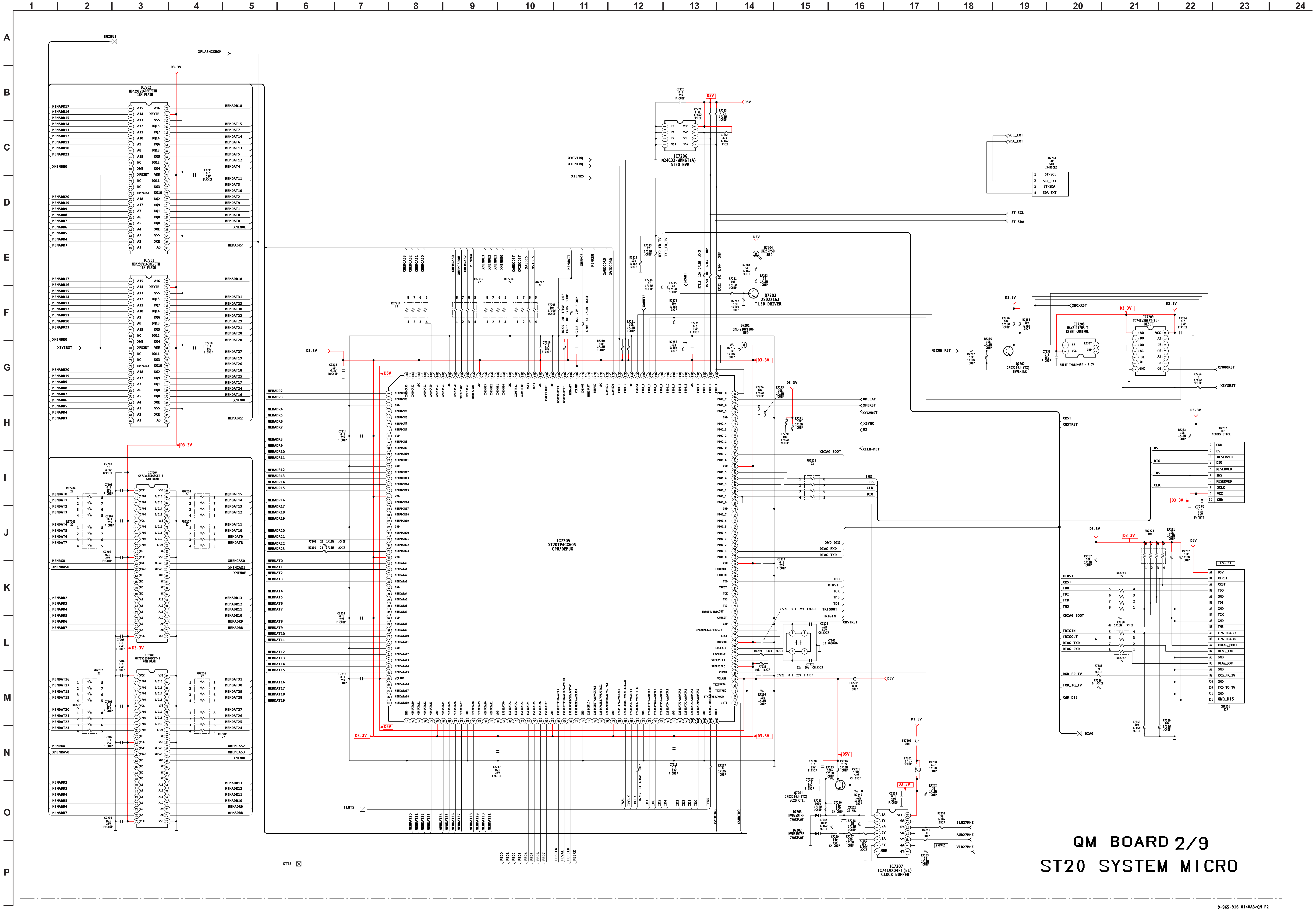
QM BOARD SCHEMATIC DIAGRAM (1 OF 9)


TU7001
BTD-DA403
ISOLATE
TO A BOARD CN6005
CN7001 8P
TO QI BOARD CN9201
CN7002 100P PLUG
IC7002
LTC1628CG#TR
DUAL DC-DC CONV.
Q7001
SI4920DY
1.8V
SWITCH FET
Q7002
SI4920DY
3.3V
SWITCH FET
D7001
MBRS140T3
D7002
MBRS140T3
D7005
MA2S111-(TX)
D7006
SML-210VTT86
RED
D7007
SML-210MT-T86
GREEN
Q7005
2SD2216J-(TX)
LED DRIVER
Q7006
2SD2216J-(TX)
LED DRIVER
+9V
+33V
A5V
D5V
+6.5V
D1.8V
D3.3V
TS_FROM_ILM
TS_TO_ILM
XILMRST
XILMIRQ
XILM-DET
EMIBUS
ILM27MHZ
ILMCTRL
ILMTS
ST-SCL
ST-SDA
XFERST
STTS

QM BOARD 1/9
FE-PS

9-965-916-01<HA3>QM P1

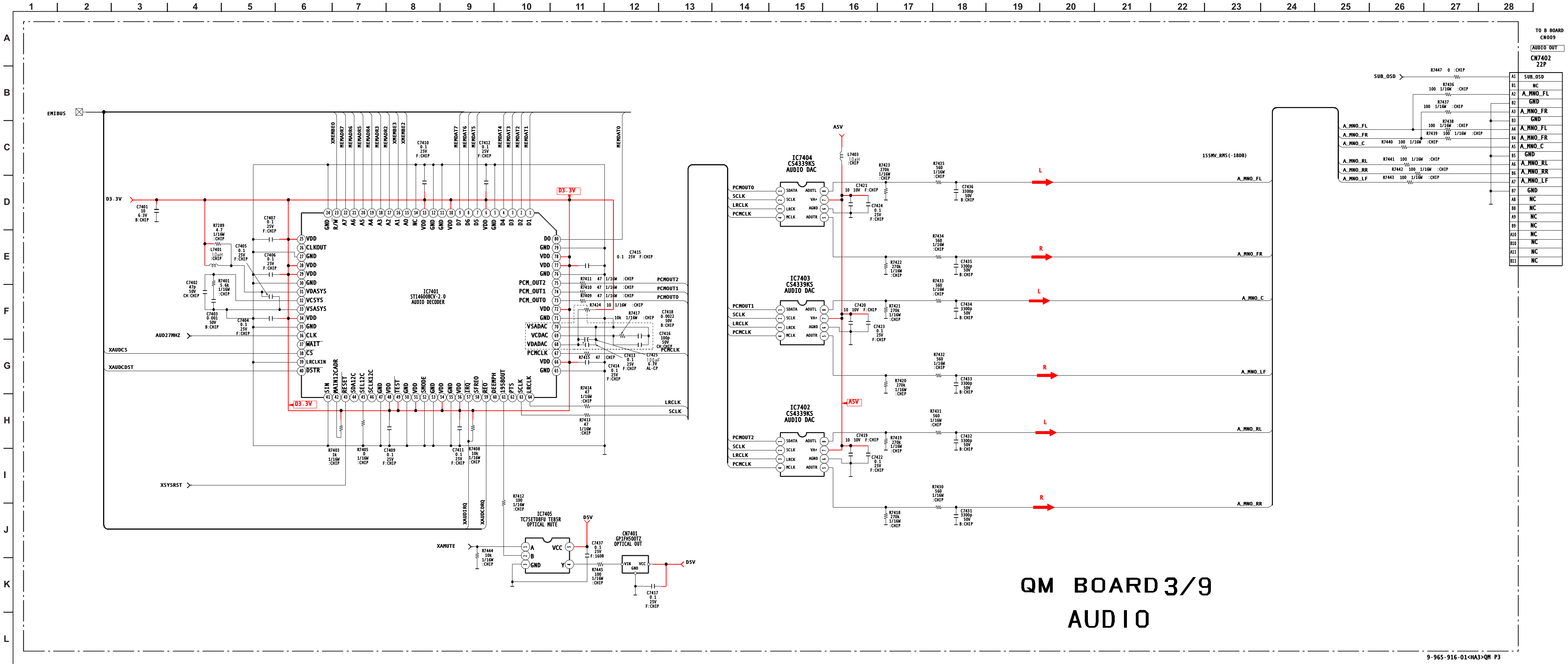
QM BOARD SCHEMATIC DIAGRAM (2 OF 9)


IC7202
MBM29LV160BE70TN
16M FLASH
IC7201
MBM29LV160BE70TN
16M FLASH
IC7204
GM71VS65163CLT-5
64M DRAM
IC7203
GM71VS65163CLT-5
64M DRAM
IC7205
ST20TP4CX60S
CPU/DEMUX
IC7206
M24C32-WMN6T(A)
ST20 NVM
IC7208
MAX811TEUS-T
RESET CONTROL
IC7209
TC74LVX08FT(EL)
RESET
IC7207
TC74LVX04FT(EL)
CLOCK BUFFER
Q7203
2SD2216J
LED DRIVER
Q7202
2SD2216J-(TX)
INVERTER
D7201
SML-210VTT86
RED
D7204
LN25RP50
RED
CN7202
10P
MEMORY STICK
CN7201
22P
CN7204
4P
S-MICRO
D3.3V
D5V
EMIBUS
XFLASHCSROM
XSYSRST
XYGVIRQ
XILMIRQ
XILMRST
MICON_RST
XTDOORST
XSYSRST
ILM27MHZ
AUD27MHZ
VID27MHZ
DIAG
STTS
ILMTS

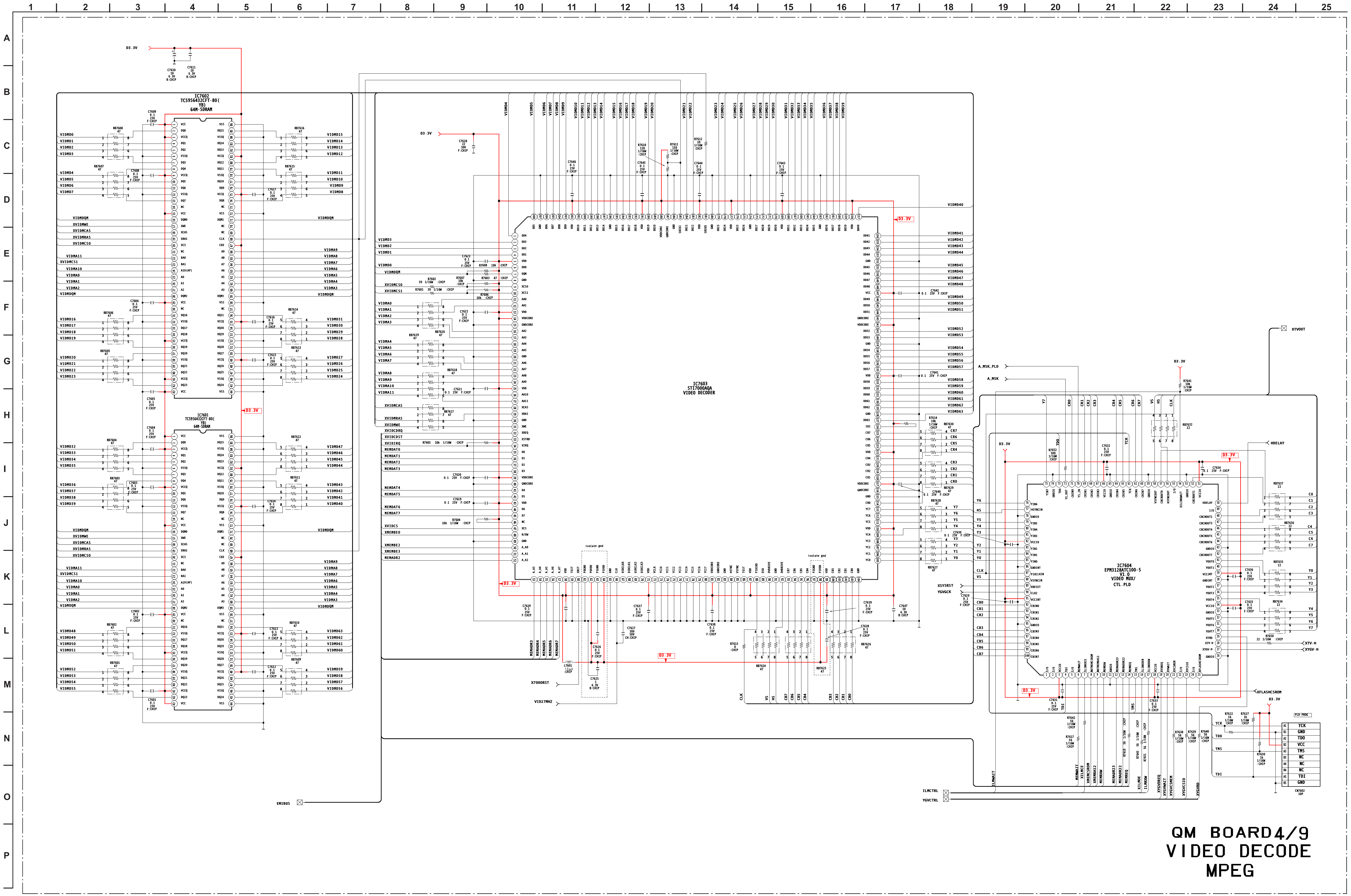
QM BOARD 2/9
ST20 SYSTEM MICRO

9-965-916-01<HA3>QM P2

QM BOARD SCHEMATIC DIAGRAM (3 OF 9)


EMIBUS
D3.3V
IC7401
STI4600BCV-2.0
AUDIO DECODER
AUD27MHZ
XAUDCS
XAUDCDST
XSYSRST
XAMUTE
IC7405
TC7SET08FU TE85R
OPTICAL MUTE
CN7401
GP1FH500TZ
OPTICAL OUT
D5V
A5V
IC7404
CS4339KS
AUDIO DAC
IC7403
CS4339KS
AUDIO DAC
IC7402
CS4339KS
AUDIO DAC
PCMOUT0
PCMOUT1
PCMOUT2
SCLK
LRCLK
PCMCLK
155MV_RMS(-18DB)
A_MNO_FL
A_MNO_FR
A_MNO_C
A_MNO_LF
A_MNO_RL
A_MNO_RR
SUB_OSD
TO B BOARD
CN009
AUDIO OUT
CN7402
22P
QM BOARD 3/9
AUDIO
9-965-916-01<HA3>QM P3

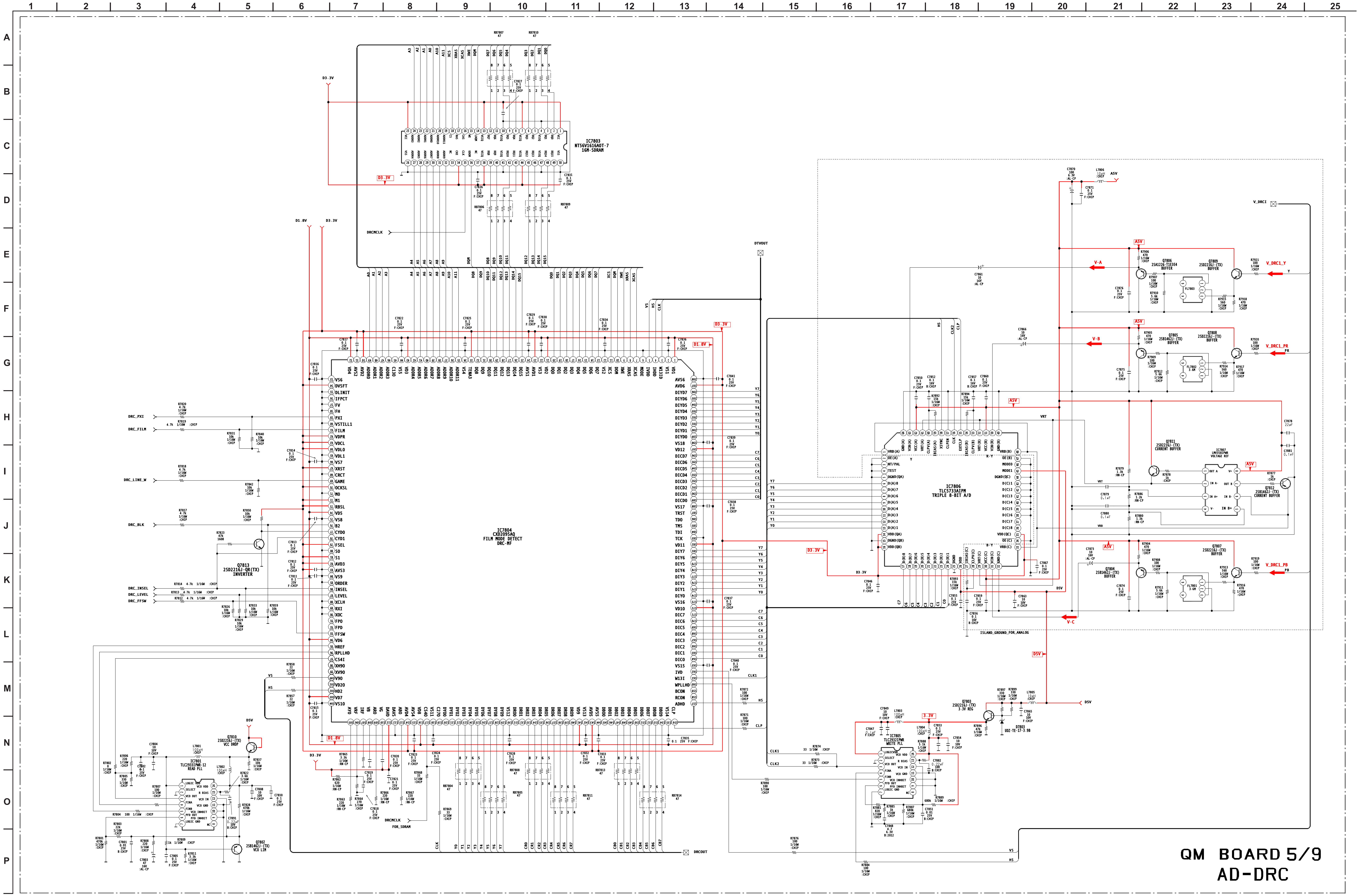
QM BOARD SCHEMATIC DIAGRAM (4 OF 9)


IC7602
TC59S6432CFT-80(YB)
64M-SDRAM
IC7605
TC59S6432CFT-80(YB)
64M-SDRAM
IC7603
STI7000AQA
VIDEO DECODER
IC7604
EPM3128ATC100-5
V1.0
VIDEO MUX/
CTL.PLD
D3.3V
DTVOUT
A_MSK_PLD
A_MSK
HDELAY
XSYSRST
YGVGCK
X7000RST
VID27MHZ
EMIBUS
ILMCTRL
YGVCTRL
XFLASHCSROM
XTV-H
XYGV-H
PLD PROG
TCK
GND
TDO
VCC
TMS
NC
TDI
isolate gnd

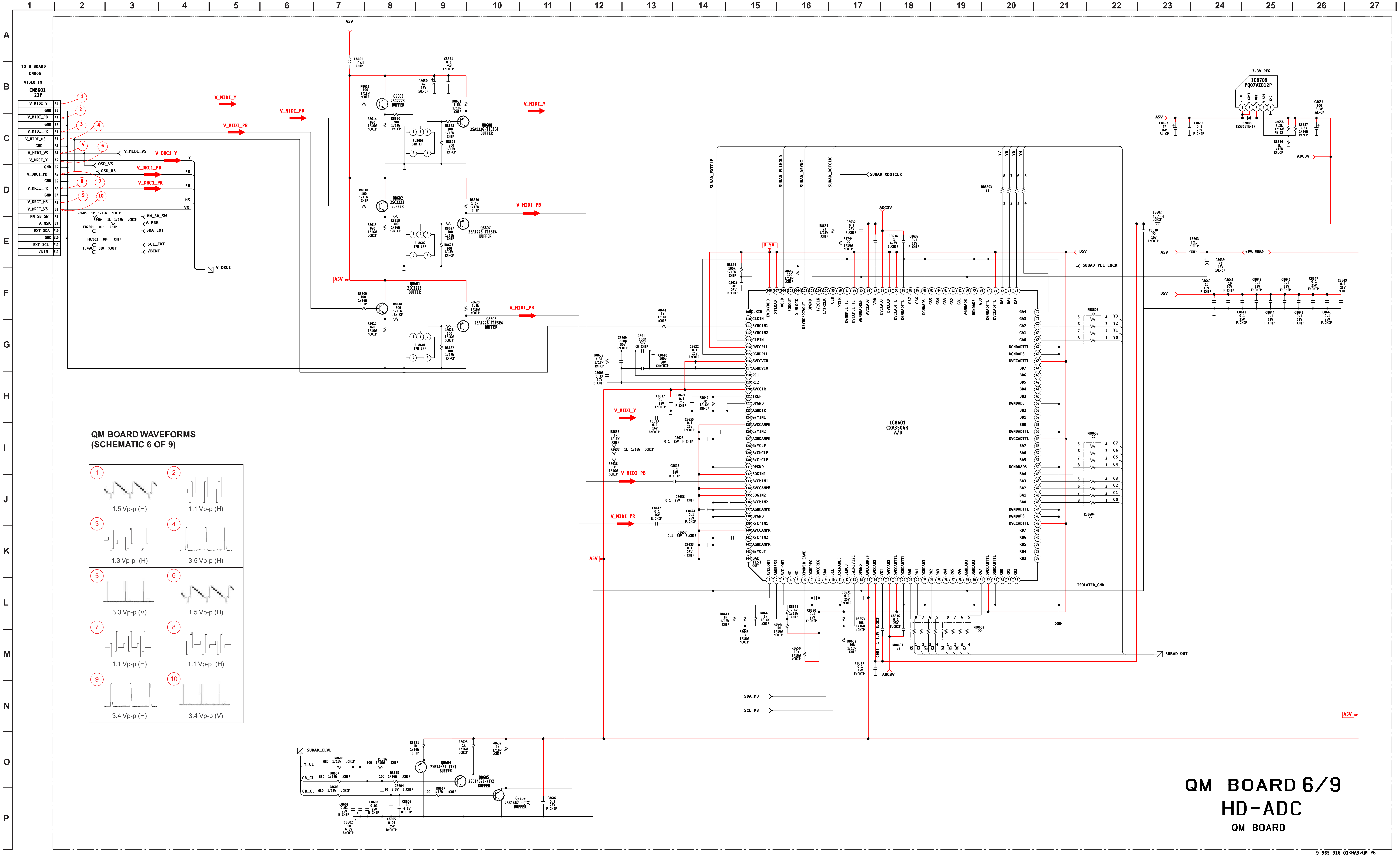
QM BOARD4/9
VIDEO DECODE
MPEG

9-965-916-01<HA3>QM P4

QM BOARD SCHEMATIC DIAGRAM (5 OF 9)

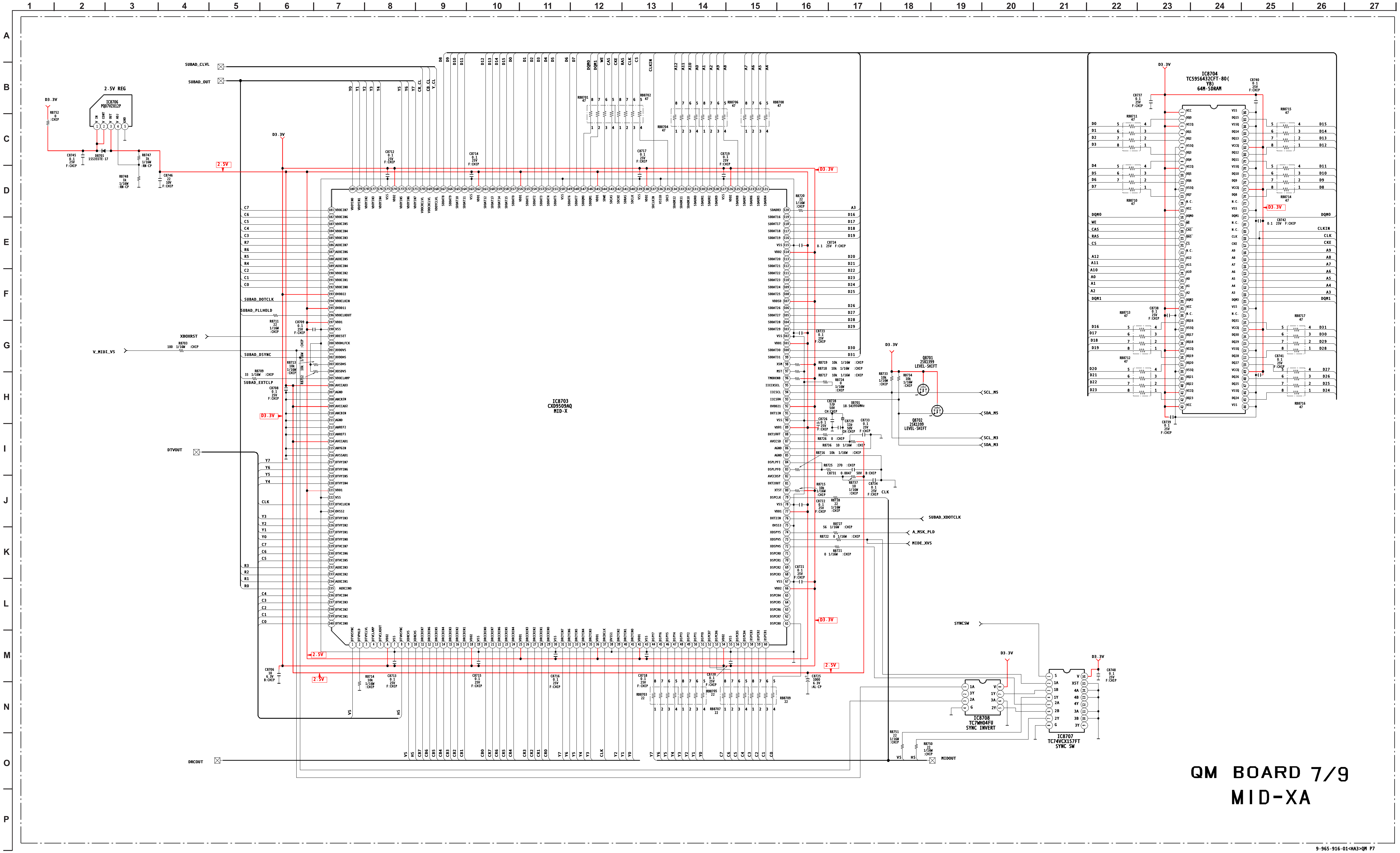

IC7803
NT56V1616A0T-7
16M-SDRAM
IC7804
CXD2095AQ
FILM MODE DETECT
DRC-MF
IC7806
TLC5733AIPM
TRIPLE 8-BIT A/D
Q7813
2SD2216J-QR(TX)
INVERTER
IC7801
TLC2933IPWR-12
READ PLL
IC7805
TLC2932IPWR
WRITE PLL
IC7807
LM358IPWR
VOLTAGE REF
Q7806
2SA1226-T1E3E4
BUFFER
Q7809
2SD2216J-(TX)
BUFFER
Q7805
2SB1462J-(TX)
BUFFER
Q7808
2SD2216J-(TX)
BUFFER
Q7811
2SD2216J-(TX)
CURRENT BUFFER
Q7812
2SB1462J-(TX)
CURRENT BUFFER
Q7804
2SB1462J-(TX)
BUFFER
Q7807
2SD2216J-(TX)
BUFFER
Q7803
2SD2216J-(TX)
3.3V REG
Q7810
2SD2216J-(TX)
VCC DROP
Q7802
2SB1462J-(TX)
VCO LIM
DRC_PXI
DRC_FILM
DRC_LINE_W
DRC_BLK
DRC_INSEL
DRC_LEVEL
DRC_FFSW
DRCMCLK
DTVOUT
DRCOUT
V_DRCI
V_DRC1_Y
V_DRC1_PR
V_DRC1_PB
V-A
V-B
V-C
VRT
VRB
D3.3V
D1.8V
A5V
D5V
3.3V
CLK1
CLK2
VS
HS
FOR_SDRAM
ISLAND_GROUND_FOR_ANALOG
QM BOARD 5/9
AD-DRC

QM BOARD SCHEMATIC DIAGRAM (6 OF 9)

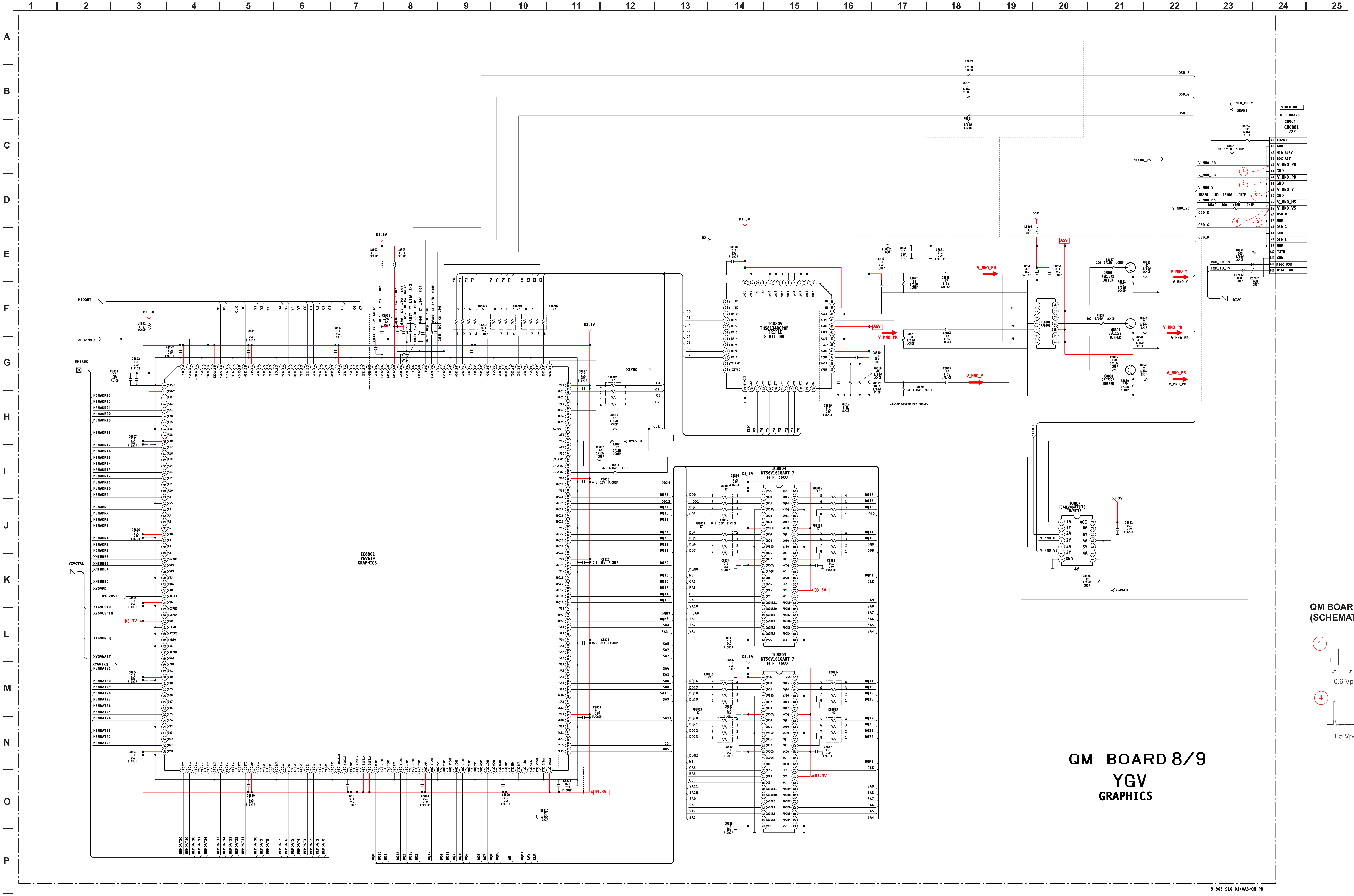

TO B BOARD
CN005
VIDEO_IN
CN8601
22P
V_MIDI_Y
V_MIDI_PB
V_MIDI_PR
V_MIDI_HS
V_MIDI_VS
V_DRC1_Y
V_DRC1_PB
V_DRC1_PR
V_DRC1_HS
V_DRC1_VS
MN_SB_SW
A_MSK
EXT_SDA
EXT_SCL
/BINT
OSD_VS
OSD_HS
SDA_EXT
SCL_EXT
V_DRCI
A5V
Q8603 2SC2223 BUFFER
Q8608 2SA1226-T1E3E4 BUFFER
Q8602 2SC2223 BUFFER
Q8607 2SA1226-T1E3E4 BUFFER
Q8601 2SC2223 BUFFER
Q8606 2SA1226-T1E3E4 BUFFER
FL8603 34M LPF
FL8602 17M LPF
FL8601 17M LPF
IC8601 CXA3506R A/D
IC8709 PQ07VZ012P
3.3V REG
D7008 1SS355TE-17
ADC3V
D5V
SUBAD_XDOTCLK
SUBAD_PLL_LOCK
SUBAD_EXTCLP
SUBAD_FLLHOLD
SUBAD_DSYNC
SUBAD_DOTCLK
SUBAD_OUT
SUBAD_CLVL
ISOLATED_GND
SDA_M3
SCL_M3
Y_CL
CB_CL
CR_CL
Q8604 2SB1462J-(TX) BUFFER
Q8605 2SB1462J-(TX) BUFFER
Q8609 2SB1462J-(TX) BUFFER
QM BOARD WAVEFORMS (SCHEMATIC 6 OF 9)
① 1.5 Vp-p (H)
② 1.1 Vp-p (H)
③ 1.3 Vp-p (H)
④ 3.5 Vp-p (H)
⑤ 3.3 Vp-p (V)
⑥ 1.5 Vp-p (H)
⑦ 1.1 Vp-p (H)
⑧ 1.1 Vp-p (H)
⑨ 3.4 Vp-p (H)
⑩ 3.4 Vp-p (V)
9-965-916-01<HA3>QM P6

QM BOARD 6/9
HD-ADC
QM BOARD

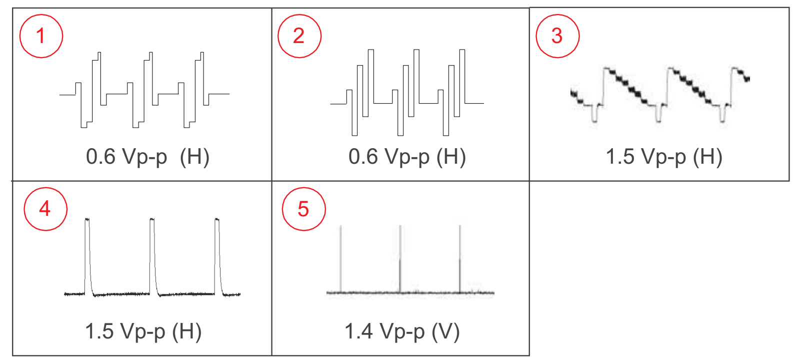
QM BOARD SCHEMATIC DIAGRAM (7 OF 9)


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
A B C D E F G H I J K L M N O P
2.5V REG
IC8706
PQ07VZ012P
D3.3V
2.5V
SUBAD_CLVL
SUBAD_OUT
XBOXRST
V_MIDI_VS
DTVOUT
DRCOUT
IC8703
CXD9509AQ
MID-X
SUBAD_DOTCLK
SUBAD_PLLHOLD
SUBAD_DSYNC
SUBAD_EXTCLP
Q8701
2SK1399
LEVEL-SHIFT
Q8702
2SK1399
LEVEL-SHIFT
SCL_MS
SDA_MS
SCL_M3
SDA_M3
SUBAD_XDOTCLK
A_MSK_PLD
MIDE_XVS
SYNCSW
IC8708
TC7WH04FU
SYNC INVERT
IC8707
TC74VCX157FT
SYNC SW
MIDOUT
IC8704
TC59S6432CFT-80(YB)
64M-SDRAM
QM BOARD 7/9
MID-XA
9-965-916-01<HA3>QM P7

QM BOARD SCHEMATIC DIAGRAM (8 OF 9)

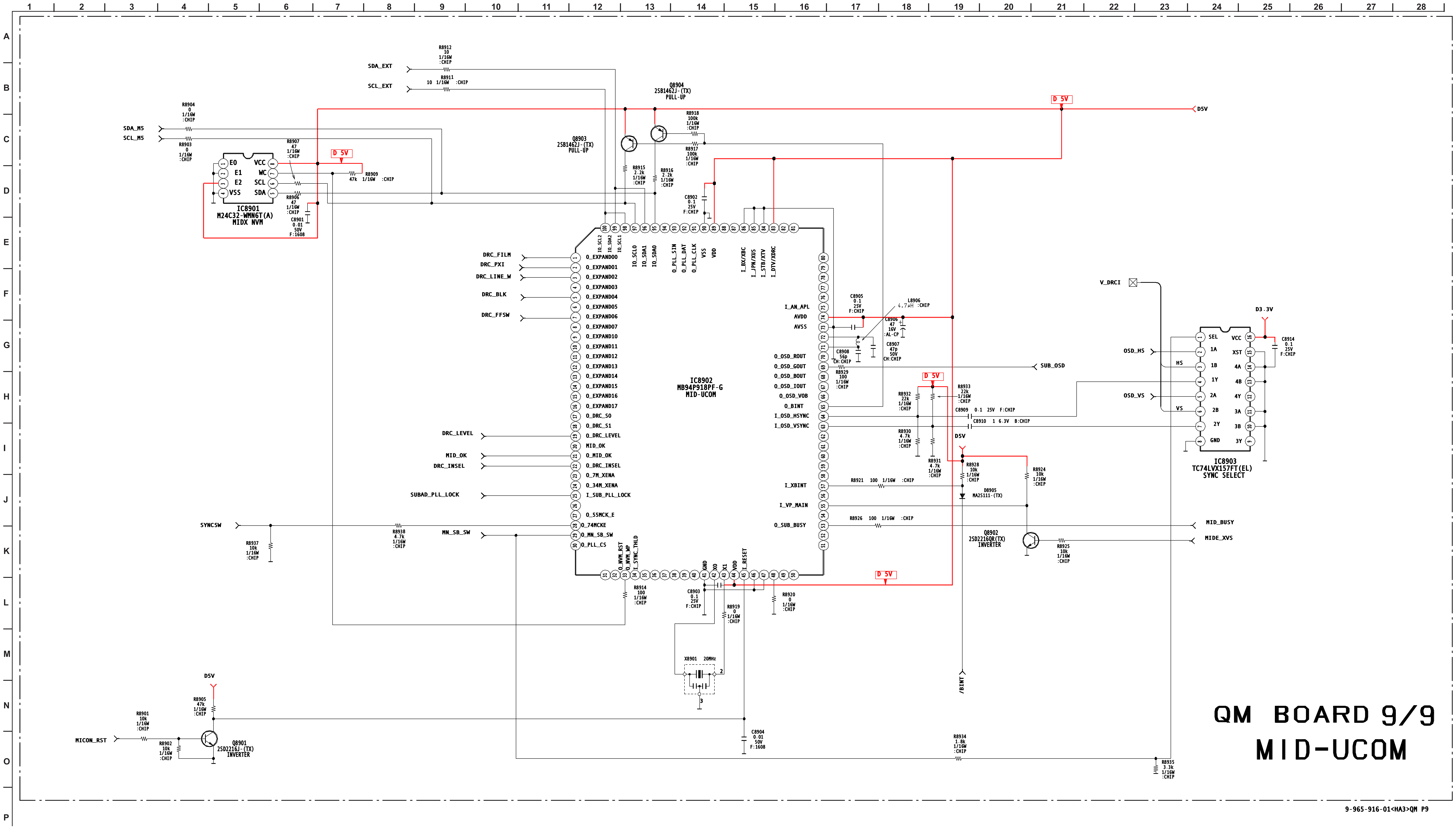

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
IC8801
YGV619
GRAPHICS
IC8805
THS8134BCPHP
TRIPLE
8 BIT DAC
IC8804
NT56V1616A0T-7
16 M SDRAM
IC8803
NT56V1616A0T-7
16 M SDRAM
IC8807
TC74LVX04FT(EL)
INVERTER
Q8806
2SC2223
BUFFER
Q8805
2SC2223
BUFFER
Q8804
2SC2223
BUFFER
VIDEO OUT
TO B BOARD
CN004
CN8801
22P
MIDOUT
AUD27MHZ
EMIBUS
YGVCTRL
XSYNC
XYGV-H
YGVGCK
DIAG
MICOM_RST
MID_BUSY
GRANT
OSD_R
OSD_G
OSD_B
V_MNO_PR
V_MNO_PB
V_MNO_Y
V_MNO_HS
V_MNO_VS
RXD_FR_TV
TXD_TO_TV
ISLAND_GROUND_FOR_ANALOG
D3.3V
A5V
QM BOARD 8/9
YGV
GRAPHICS

QM BOARD WAVEFORMS (SCHEMATIC 8 OF 9)



9-965-916-01<HA3>QM P8

QM BOARD SCHEMATIC DIAGRAM (9 OF 9)

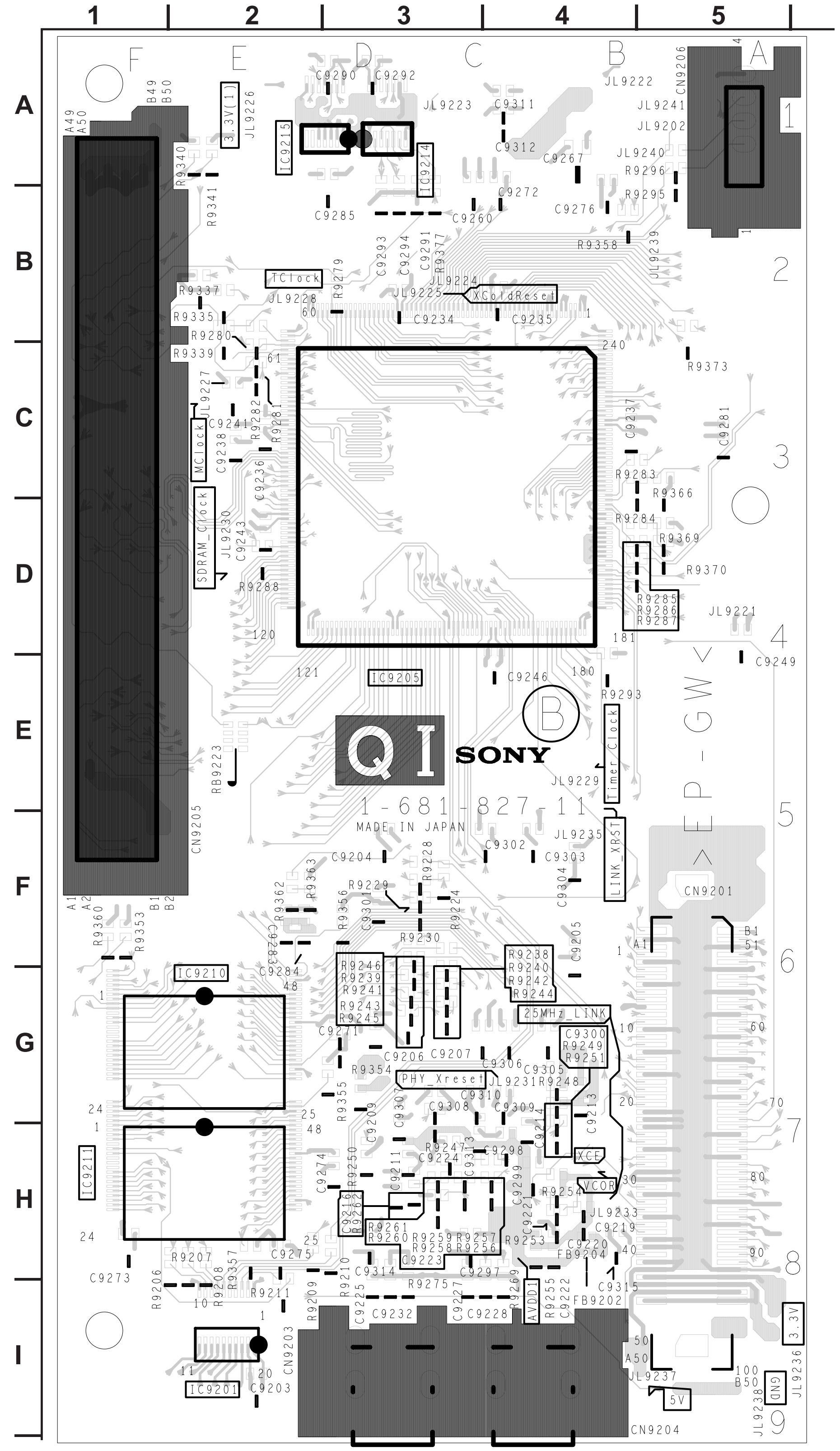


QM BOARD 9/9
MID-UCOM
IC8902
MB94P918PF-G
MID-UCOM
IC8901
M24C32-WMN6T(A)
MIDX NVM
IC8903
TC74LVX157FT(EL)
SYNC SELECT
Q8904
2SB1462J-(TX)
PULL-UP
Q8903
2SB1462J-(TX)
PULL-UP
Q8902
2SD2216QR(TX)
INVERTER
Q8901
2SD2216J-(TX)
INVERTER
X8901 20MHz
D8905
MA2S111-(TX)
SDA_EXT
SCL_EXT
SDA_M5
SCL_M5
D5V
D 5V
D3.3V
V_DRCI
DRC_FILM
DRC_PXI
DRC_LINE_W
DRC_BLK
DRC_FFSW
DRC_LEVEL
MID_OK
DRC_INSEL
SUBAD_PLL_LOCK
SYNCSW
MN_SB_SW
MICON_RST
SUB_OSD
OSD_HS
OSD_VS
HS
VS
MID_BUSY
MIDE_XVS
/BINT
O_EXPAND00
O_EXPAND01
O_EXPAND02
O_EXPAND03
O_EXPAND04
O_EXPAND05
O_EXPAND06
O_EXPAND07
O_EXPAND10
O_EXPAND11
O_EXPAND12
O_EXPAND13
O_EXPAND14
O_EXPAND15
O_EXPAND16
O_EXPAND17
O_DRC_S0
O_DRC_S1
O_DRC_LEVEL
MID_OK
O_MID_OK
O_DRC_INSEL
O_7M_XENA
O_34M_XENA
I_SUB_PLL_LOCK
O_55MCK_E
O_74MCKE
O_MN_SB_SW
O_PLL_CS
IO_SCL2
IO_SDA1
IO_SCL1
IO_SCL0
IO_SDA1
IO_SDA0
O_PLL_SIN
O_PLL_DAT
O_PLL_CLK
VSS
VDD
I_BX/XBC
I_JPN/XUS
I_STB/XTV
I_DTV/XDRC
I_AN_APL
AVDD
AVSS
O_OSD_ROUT
O_OSD_GOUT
O_OSD_BOUT
O_OSD_IOUT
O_OSD_VOB
O_BINT
I_OSD_HSYNC
I_OSD_VSYNC
I_XBINT
I_VP_MAIN
O_SUB_BUSY
O_NVM_RST
O_NVM_WP
I_SYNC_THLD
GND
X0
X1
VDD
I_RESET
EO
E1
E2
VSS
VCC
WC
SCL
SDA
SEL
1A
1B
1Y
2A
2B
2Y
GND
VCC
XST
4A
4B
4Y
3A
3B
3Y
R8912 10 1/16W :CHIP
R8911 10 1/16W :CHIP
R8904 0 1/16W :CHIP
R8903 0 1/16W :CHIP
R8907 47 1/16W :CHIP
R8909 47k 1/16W :CHIP
R8906 47 1/16W :CHIP
C8901 0.01 50V F:1608
R8918 100k 1/16W :CHIP
R8917 100k 1/16W :CHIP
R8915 2.2k 1/16W :CHIP
R8916 2.2k 1/16W :CHIP
C8902 0.1 25V F:CHIP
C8905 0.1 25V F:CHIP
L8906 4.7μH :CHIP
C8906 47 16V :AL-CP
C8907 47p 50V CH:CHIP
C8908 56p CH:CHIP
R8929 100 1/16W :CHIP
R8932 22k 1/16W :CHIP
R8933 22k 1/16W :CHIP
C8909 0.1 25V F:CHIP
C8910 1 6.3V B:CHIP
R8930 4.7k 1/16W :CHIP
R8931 4.7k 1/16W :CHIP
R8928 10k 1/16W :CHIP
R8924 10k 1/16W :CHIP
R8921 100 1/16W :CHIP
R8926 100 1/16W :CHIP
R8925 10k 1/16W :CHIP
C8914 0.1 25V F:CHIP
R8938 4.7k 1/16W :CHIP
R8937 10k 1/16W :CHIP
R8914 100 1/16W :CHIP
C8903 0.1 25V F:CHIP
R8919 0 1/16W :CHIP
R8920 0 1/16W :CHIP
C8904 0.01 50V F:1608
R8905 47k 1/16W :CHIP
R8901 10k 1/16W :CHIP
R8902 10k 1/16W :CHIP
R8934 1.8k 1/16W :CHIP
R8935 3.3k 1/16W :CHIP
9-965-916-01<HA3>QM P9

PRINTED WIRING BOARDS

QI [BOARD TO BOARD CONNECTOR, LINK-AND-PHY, B-CHIP-AND-SDRAM, FLASH-AND-PROM]

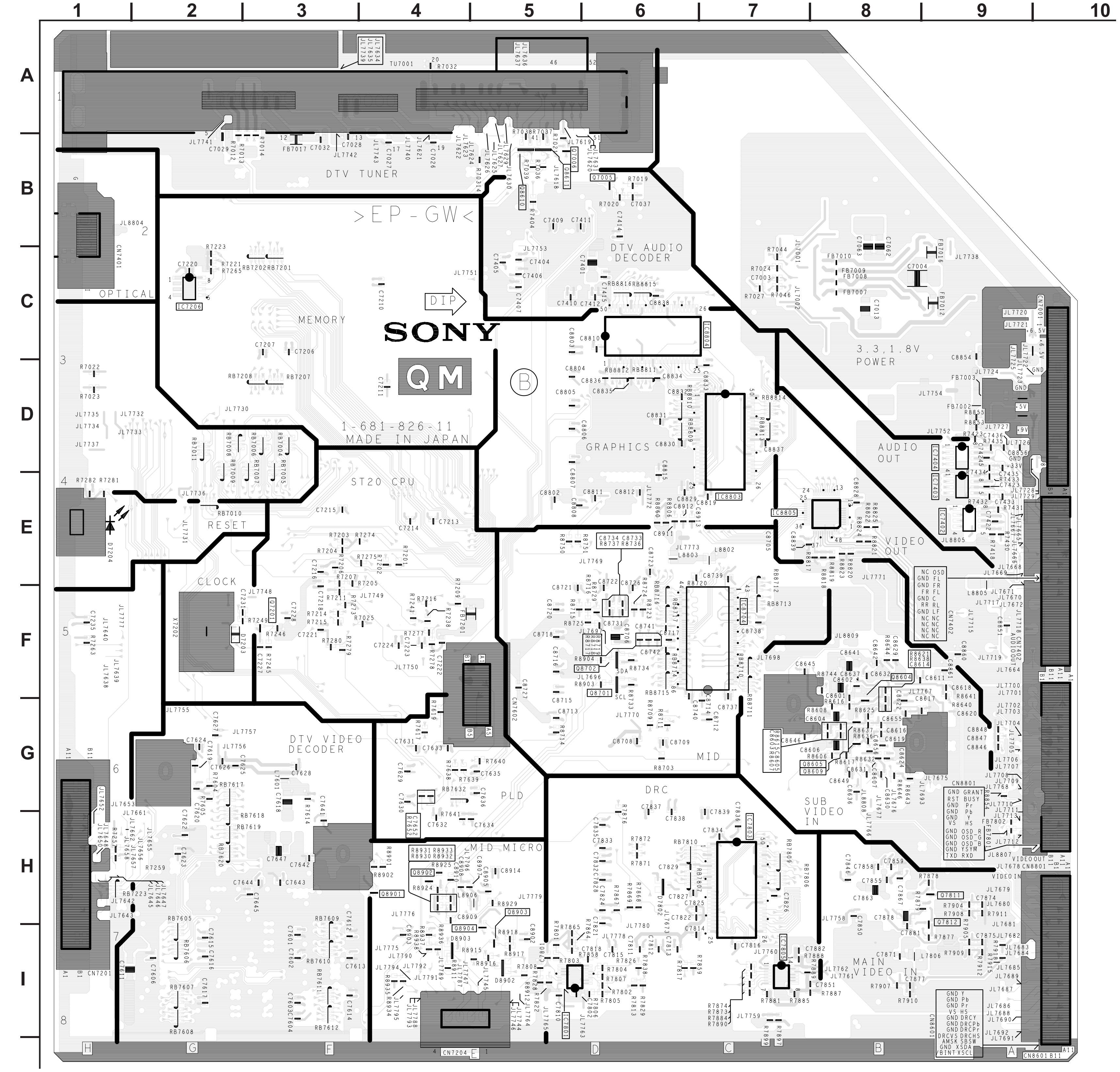
COMPONENT SIDE



1
2
3
4
5
A
B
C
D
E
F
G
H
I
QI
SONY
1-681-827-11
MADE IN JAPAN
>EP-GW<
IC9205
IC9210
IC9211
IC9201
IC9215
IC9214
CN9205
CN9201
CN9204
CN9203
CN9206
25MHz_LINK
PHY_Xreset
SDRAM_Clock
MClock
TClock
XCardReset
Timer_Clock
LINK_XRST
3.3V
5V

QM [FE-PS, ST-20 SYSTEM MICRO, AUDIO, VIDEO DECODE, MPEG, AD-DRC, HD-ADC, MID-XA, YGV GRAPHICS, MID-UCOM]

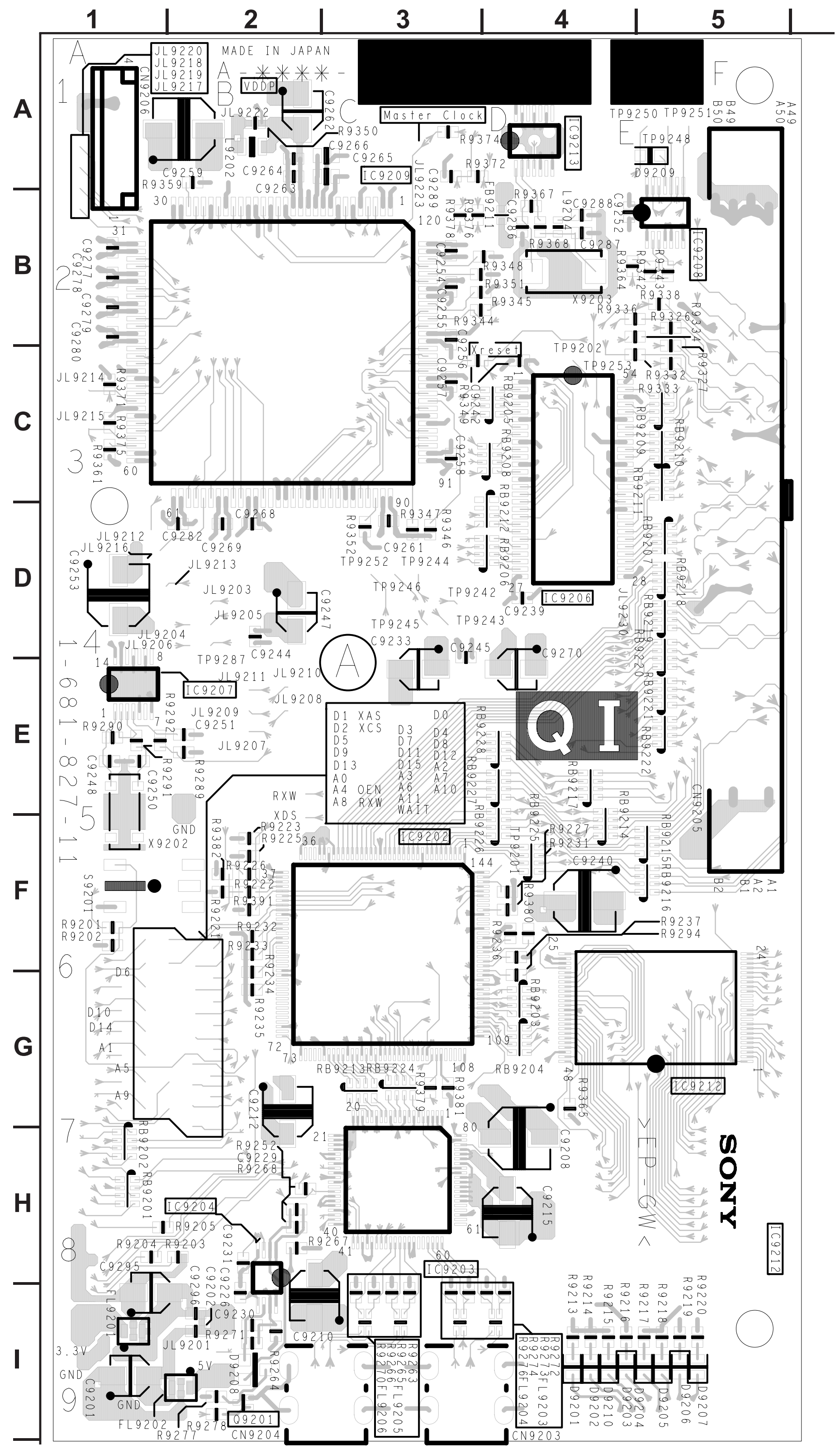
COMPONENT SIDE



1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
TU7001
DTV TUNER
>EP-GW<
DTV AUDIO DECODER
OPTICAL
MEMORY
DIP
SONY
QM
GRAPHICS
3.3,1.8V POWER
1-681-826-11
MADE IN JAPAN
ST20 CPU
AUDIO OUT
RESET
VIDEO OUT
CLOCK
MID
DTV VIDEO DECODER
PLD
DRC
SUB VIDEO IN
MID MICRO
MAIN VIDEO IN
CN7401
CN7201
CN7204
CN8601
CN8801
CN7402

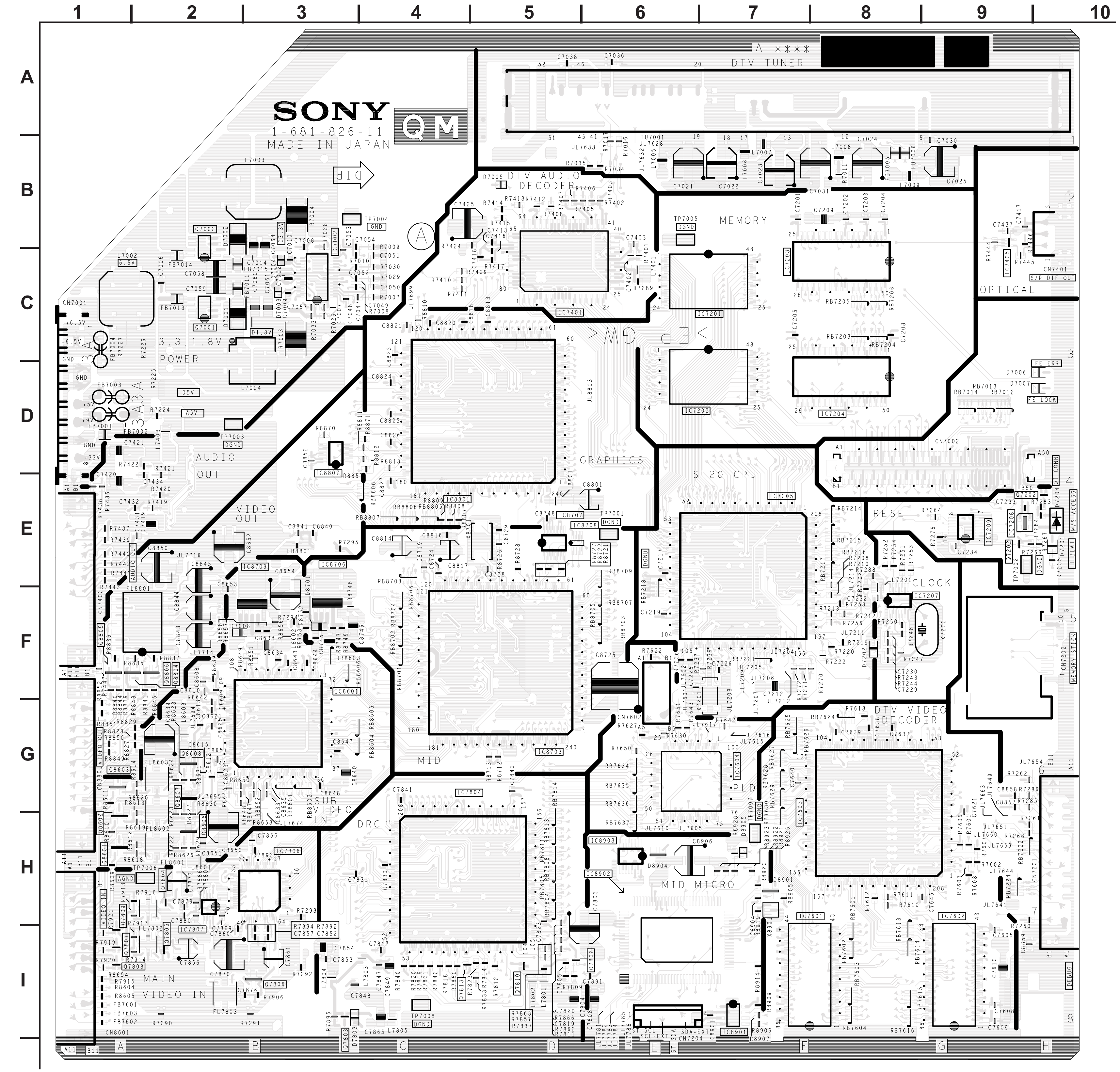
QI [BOARD TO BOARD CONNECTOR, LINK-AND-PHY, B-CHIP-AND-SDRAM, FLASH-AND-PROM]

CONDUCTOR SIDE


1
2
3
4
5
A
B
C
D
E
F
G
H
I
MADE IN JAPAN
Master Clock
QI
1-681-827-11
SONY
IC9202
IC9203
IC9204
IC9206
IC9207
IC9208
IC9209
IC9212
IC9213
CN9203
CN9204
CN9205

QM [FE-PS, ST-20 SYSTEM MICRO, AUDIO, VIDEO DECODE, MPEG, AD-DRC, HD-ADC, MID-XA, YGV GRAPHICS, MID-UCOM]

CONDUCTOR SIDE


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
H
I
SONY
QM
1-681-826-11
MADE IN JAPAN
DTV TUNER
DTV AUDIO DECODER
MEMORY
OPTICAL
3.3, 1.8V POWER
AUDIO OUT
VIDEO OUT
GRAPHICS
ST20 CPU
RESET
CLOCK
MID
SUB VIDEO IN
DRC
PLD
DTV VIDEO DECODER
MID MICRO
MAIN VIDEO IN
DEBUG
CN7001
CN7002
CN7201
CN7202
CN7204
CN8601

ELECTRICAL PARTS LIST

QM

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS
  PF : µµF

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

QM BOARD
****

Note: The QM board is not field repairable and cannot be ordered independently. If service is required, use the following part number to order a replacement Q-box which includes the complete QM and QI board assemblies.

SEE SUPPLEMENT-2 Q-BOX, COMPLETE (KDP-57)
SEE SUPPLEMENT-2 Q-BOX, COMPLETE (KDP-65)
****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION			REMARK
C7002	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C7003	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C7004	1-117-808-91	CERAMIC CHIP	10µF	10%	10V
C7006	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7007	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7008	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7009	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7010	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7013	1-119-667-11	CERAMIC CHIP	22µF		10V
C7014	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7021	1-126-204-11	ELECT CHIP	47µF	20%	16V
C7022	1-128-393-11	ELECT CHIP	100µF	20%	10V
C7023	1-128-393-11	ELECT CHIP	100µF	20%	10V
C7024	1-126-197-11	ELECT CHIP	10µF	20%	50V
C7025	1-126-204-11	ELECT CHIP	47µF	20%	16V
C7026	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7027	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7028	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7030	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7031	1-126-204-11	ELECT CHIP	47µF	20%	16V
C7036	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7037	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7038	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7048	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C7049	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C7052	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C7053	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C7057	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7058	1-117-808-91	CERAMIC CHIP	10µF	10%	10V
C7059	1-117-808-91	CERAMIC CHIP	10µF	10%	10V
C7060	1-119-667-11	CERAMIC CHIP	22µF		10V
C7061	1-119-667-11	CERAMIC CHIP	22µF		10V
C7062	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7063	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7064	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7201	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7202	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7203	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7204	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7205	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7206	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7207	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7208	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7209	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7210	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7211	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7212	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7213	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7214	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7215	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7216	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7217	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7218	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7219	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7220	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7221	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7222	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7223	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7224	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7225	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C7226	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C7227	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7228	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7229	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
C7230	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
C7231	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7232	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7233	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7234	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7235	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7401	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7402	1-162-923-11	CERAMIC CHIP	47pF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C7403	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C7404	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7405	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7406	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7407	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7409	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7410	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7411	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7412	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7413	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7414	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7415	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7416	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C7417	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7418	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C7419	1-117-370-11	CERAMIC CHIP	10µF		10V
C7420	1-117-370-11	CERAMIC CHIP	10µF		10V
C7421	1-117-370-11	CERAMIC CHIP	10µF		10V
C7422	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7423	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7424	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7425	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C7431	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7432	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7433	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7434	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7435	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7436	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C7437	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7601	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7602	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7603	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7604	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7605	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7606	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7608	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7609	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7610	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7611	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7612	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7613	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7614	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7615	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7616	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7617	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7618	1-119-667-11	CERAMIC CHIP	22µF		10V
C7619	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7620	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7621	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7622	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7623	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7624	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7625	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C7626	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7627	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C7628	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7629	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7630	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7631	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7632	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7633	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7634	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7635	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7636	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7637	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7638	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7639	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7640	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7641	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7642	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7643	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7644	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7645	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7646	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7647	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C7801	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C7802	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7803	1-126-204-11	ELECT CHIP	47µF	20%	16V
C7804	1-117-370-11	CERAMIC CHIP	10µF		10V
C7805	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7808	1-117-370-11	CERAMIC CHIP	10µF		10V
C7810	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7811	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7812	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7813	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7814	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7815	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7816	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7817	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7818	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7819	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7820	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7821	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7822	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7823	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7824	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7825	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7826	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7827	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7828	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7829	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7830	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7831	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7832	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7833	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7834	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7835	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7836	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7837	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7838	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7839	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7840	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C7841	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7846	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7847	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7848	1-127-760-11	CERAMIC CHIP	4.7µF	10%	6.3V
C7849	1-117-370-11	CERAMIC CHIP	10µF		10V
C7850	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7851	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C7852	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C7853	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7854	1-117-370-11	CERAMIC CHIP	10µF		10V
C7855	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7856	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C7857	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C7859	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7860	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7861	1-124-779-00	ELECT CHIP	10µF	20%	16V
C7863	1-117-370-11	CERAMIC CHIP	10µF		10V
C7865	1-117-370-11	CERAMIC CHIP	10µF		10V
C7866	1-124-779-00	ELECT CHIP	10µF	20%	16V
C7867	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7870	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C7871	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7873	1-124-779-00	ELECT CHIP	10µF	20%	16V
C7874	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7875	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7876	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7878	1-119-667-11	CERAMIC CHIP	22µF		10V
C7879	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7880	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7881	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C7882	1-115-467-11	CERAMIC CHIP	0.22µF	10%	10V
C7891	1-115-467-11	CERAMIC CHIP	0.22µF	10%	10V
C8601	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8602	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C8603	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8604	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C8605	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8606	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C8607	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8608	1-165-112-11	CERAMIC CHIP	0.33µF	20%	10V
C8609	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C8610	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8611	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8612	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8613	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8615	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C8617	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8621	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8622	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8623	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8624	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8625	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8629	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C8630	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8631	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8632	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8633	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8634	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C8635	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C8636	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8637	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8638	1-119-667-11	CERAMIC CHIP	22µF		10V
C8639	1-126-204-11	ELECT CHIP	47µF	20%	16V
C8640	1-117-370-11	CERAMIC CHIP	10µF		10V
C8641	1-117-370-11	CERAMIC CHIP	10µF		10V
C8642	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8643	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8644	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8645	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8646	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8647	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8648	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8649	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8650	1-126-204-11	ELECT CHIP	47µF	20%	16V
C8651	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8652	1-126-204-11	ELECT CHIP	47µF	20%	16V
C8653	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8654	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C8655	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8656	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8657	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8706	1-127-692-11	CERAMIC CHIP	10µF	10%	6.3V
C8708	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8709	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8712	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8713	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8714	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8715	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8716	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8717	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8718	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8719	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8720	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8721	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8722	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8723	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8724	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8725	1-110-530-11	ELECT CHIP	1000µF	20%	6.3V
C8726	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8728	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C8729	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C8731	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C8733	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8734	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8737	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8738	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8739	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8740	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8741	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8742	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8745	1-164-156-11	CERAMIC CHIP	0.1µF		25V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8746	1-119-667-11	CERAMIC CHIP	22µF		10V
C8748	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8801	1-124-779-00	ELECT CHIP	10µF	20%	16V
C8802	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8803	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8804	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8805	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8806	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8807	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8808	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8810	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8811	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8812	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8813	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8814	1-124-779-00	ELECT CHIP	10µF	20%	16V
C8815	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8816	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8817	1-124-779-00	ELECT CHIP	10µF	20%	16V
C8818	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8819	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8820	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8821	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8823	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8824	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8825	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8826	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8827	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8828	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8829	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8830	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8831	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8832	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8833	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8834	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8835	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8836	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8837	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8838	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8839	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8840	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8841	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8843	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C8844	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C8845	1-126-205-11	ELECT CHIP	47µF	20%	6.3V
C8850	1-126-204-11	ELECT CHIP	47µF	20%	16V
C8851	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8852	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8860	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8861	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8901	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8902	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8903	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8904	1-162-974-11	CERAMIC CHIP	0.01µF		50V
C8905	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8906	1-126-204-11	ELECT CHIP	47µF	20%	16V
C8907	1-162-923-11	CERAMIC CHIP	47pF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C8908	1-162-924-11	CERAMIC CHIP	56pF	5%	50V
C8909	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C8910	1-125-837-91	CERAMIC CHIP	1µF	10%	6.3V
C8911	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8912	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8913	1-162-927-11	CERAMIC CHIP	100pF	5%	50V
C8914	1-164-156-11	CERAMIC CHIP	0.1µF		25V

< CONNECTOR >

REF.NO.	PART NO.	DESCRIPTION
CN7001	* 1-794-660-11	PIN,CONNECTOR (WITH SHIELD) 8P
CN7201	* 1-815-176-11	PIN,CONNECTOR (WITH SHIELD) 22P
CN7202	* 1-793-150-12	CONNECTOR, MEMORY STICK
CN7204	* 1-564-507-11	PLUG,CONNECTOR 4P
CN7401	8-749-019-67	IC GP1FH500TZ
CN7402	* 1-815-178-11	PIN,CONNECTOR (WITH SHIELD) 22P
CN8601	* 1-815-176-11	PIN,CONNECTOR (WITH SHIELD) 22P
CN8801	* 1-815-177-11	PIN,CONNECTOR (WITH SHIELD) 22P

< DIODE >

REF.NO.	PART NO.	DESCRIPTION
D7001	8-719-048-40	DIODE MBRS140T3
D7002	8-719-048-40	DIODE MBRS140T3
D7003	8-719-046-91	DIODE MA2S111-TX
D7004	8-719-046-91	DIODE MA2S111-TX
D7005	8-719-046-91	DIODE MA2S111-TX
D7006	8-719-066-99	DIODE SML-210VTT86
D7007	8-719-060-99	DIODE SML-210MT-T86
D7008	8-719-988-61	DIODE 1SS355TE-17
D7201	8-719-066-99	DIODE SML-210VTT86
D7202	8-719-031-68	DIODE HVU359TRF
D7203	8-719-031-68	DIODE HVU359TRF
D7204	8-719-820-12	DIODE LN25RP
D7803	8-719-056-77	DIODE UDZ-TE-17-3.9B
D8701	8-719-988-61	DIODE 1SS355TE-17
D8905	8-719-046-91	DIODE MA2S111-TX

< FERRITEBEAD >

REF.NO.	PART NO.	DESCRIPTION	
FB7001	1-500-241-22	FERRITE	0µH
FB7002	1-412-911-21	FERRITE	1.1µH
FB7003	1-412-911-21	FERRITE	1.1µH
FB7004	1-412-911-21	FERRITE	1.1µH
FB7005	1-500-241-22	FERRITE	0µH
FB7006	1-500-241-22	FERRITE	0µH
FB7007	1-469-835-21	FERRITE	0µH
FB7008	1-469-835-21	FERRITE	0µH
FB7009	1-469-835-21	FERRITE	0µH
FB7010	1-469-835-21	FERRITE	0µH
FB7011	1-469-869-21	FERRITE	0µH
FB7012	1-469-869-21	FERRITE	0µH
FB7013	1-469-869-21	FERRITE	0µH
FB7014	1-400-089-21	FERRITE	0µH
FB7015	1-400-089-21	FERRITE	0µH
FB7016	1-400-089-21	FERRITE	0µH
FB7017	1-500-241-22	FERRITE	0µH
FB7201	1-414-231-22	FERRITE	0µH

REF.NO.	PART NO.	DESCRIPTION	REMARK
FB7202	1-414-229-11	FERRITE 0µH	
FB7601	1-414-229-11	FERRITE 0µH	
FB7602	1-414-229-11	FERRITE 0µH	
FB7603	1-414-229-11	FERRITE 0µH	
FB7801	1-414-229-11	FERRITE 0µH	
FB7802	1-414-229-11	FERRITE 0µH	
FB8801	1-469-835-21	FERRITE 0µH	
	< FILTER >		
FL7801	1-234-557-21	FILTER, LOW PASS	
FL7802	1-234-557-21	FILTER, LOW PASS	
FL7803	1-234-558-21	FILTER, LOW PASS	
FL8601	1-234-559-21	FILTER, LOW PASS	
FL8602	1-234-559-21	FILTER, LOW PASS	
FL8603	1-234-560-21	FILTER, LOW PASS	
FL8801	1-781-923-21	FILTER, LOW PASS (SMD)	
	< IC >		
IC7002	8-759-597-57	IC LTC1628CG#TR	
IC7201	6-700-201-01	IC MBM29LV160BE70TN	
IC7202	6-700-201-01	IC MBM29LV160BE70TN	
IC7203	8-759-679-88	IC GM71VS65163CLT-5	
IC7204	8-759-679-88	IC GM71VS65163CLT-5	
IC7205	8-759-712-93	IC ST20TP4CX60S	
IC7206	8-759-682-41	IC M24C32-WMN6T(A)	
IC7207	6-700-226-01	IC TC74LVX04FT(EL)	
IC7208	6-700-202-01	IC MAX811TEUS-T	
IC7209	8-759-538-95	IC TC74LVX08FT(EL)	
IC7401	8-759-698-88	IC STI4600BCV-2.0	
IC7402	6-700-203-01	IC CS4339KS	
IC7403	6-700-203-01	IC CS4339KS	
IC7404	6-700-203-01	IC CS4339KS	
IC7405	8-759-485-79	IC TC7SET08FU(TE85L)	
IC7601	8-759-675-89	IC TC59S6432CFT-80(YB)	
IC7602	8-759-675-89	IC TC59S6432CFT-80(YB)	
IC7603	6-700-087-01	IC STI7000AQA	
IC7604	6-700-273-01	IC EPM3128ATC100-5-V1.0	
IC7801	8-759-669-78	IC TLC2933IPWR-12	
IC7803	6-700-134-01	IC NT56V1616A0T-7-T&R	
IC7804	8-752-409-78	IC CXD2095AQ	
IC7805	8-759-669-75	IC TLC2932IPWR	
IC7806	8-759-447-90	IC TLC5733AIPM	
IC7807	6-700-274-01	IC LMV358IPWR	
IC8601	8-752-093-03	IC CXA3506R	
IC8703	8-759-672-57	IC CXD9509AQ	
IC8704	8-759-675-89	IC TC59S6432CFT-80(YB)	
IC8706	8-749-015-18	IC PQ07VZ012P	
IC8707	6-700-225-01	IC TC74VCX157FT(EL)	
IC8708	8-759-531-92	IC TC7WH04FU(TE12R)	
IC8709	8-749-015-18	IC PQ07VZ012P	
IC8801	6-700-321-01	IC YGV619	
IC8803	6-700-134-01	IC NT56V1616A0T-7-T&R	
IC8804	6-700-134-01	IC NT56V1616A0T-7-T&R	
IC8805	6-700-248-01	IC THS8134BCPHP	
IC8807	6-700-226-01	IC TC74LVX04FT(EL)	
IC8901	8-759-682-41	IC M24C32-WMN6T(A)	
IC8902	6-800-514-01	IC MB94918RPF-G-141-BND	
IC8903	6-700-205-01	IC TC74LVX157FT(EL)	
	< COIL >		
L7002	1-469-848-21	INDUCTOR 10µH	
L7003	1-469-848-21	INDUCTOR 10µH	
L7004	1-416-606-11	INDUCTOR 47µH	
L7005	1-414-755-11	INDUCTOR 22µH	
L7006	1-414-755-11	INDUCTOR 22µH	
L7007	1-414-755-11	INDUCTOR 22µH	
L7008	1-414-755-11	INDUCTOR 22µH	
L7009	1-414-755-11	INDUCTOR 22µH	
L7201	1-469-555-21	INDUCTOR 10µH	
L7401	1-469-555-21	INDUCTOR 10µH	
L7403	1-469-555-21	INDUCTOR 10µH	
L7601	1-469-555-21	INDUCTOR 10µH	
L7801	1-469-561-21	INDUCTOR 100µH	
L7802	1-469-561-21	INDUCTOR 100µH	
L7803	1-469-561-21	INDUCTOR 100µH	
L7804	1-469-561-21	INDUCTOR 100µH	
L7805	1-469-555-21	INDUCTOR 10µH	
L7806	1-469-555-21	INDUCTOR 10µH	
L8601	1-469-555-21	INDUCTOR 10µH	
L8602	1-469-553-21	INDUCTOR 4.7µH	
L8603	1-469-555-21	INDUCTOR 10µH	
L8801	1-469-555-21	INDUCTOR 10µH	
L8802	1-469-555-21	INDUCTOR 10µH	
L8803	1-469-555-21	INDUCTOR 10µH	
L8805	1-469-555-21	INDUCTOR 10µH	
L8906	1-469-553-21	INDUCTOR 4.7µH	
	< TRANSISTOR >		
Q7001	8-729-056-25	TRANSISTOR SI4922DY	
Q7002	8-729-056-25	TRANSISTOR SI4922DY	
Q7005	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7006	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7201	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7202	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7203	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7802	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q7803	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7804	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q7805	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q7806	8-729-122-63	TRANSISTOR 2SA1226-T1E3E4	
Q7807	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7808	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7809	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7810	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7811	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q7812	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO	
Q7813	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO	
Q8601	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14	

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q8602	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14			
Q8603	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14			
Q8604	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q8605	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q8606	8-729-122-63	TRANSISTOR 2SA1226-T1E3E4			
Q8607	8-729-122-63	TRANSISTOR 2SA1226-T1E3E4			
Q8608	8-729-122-63	TRANSISTOR 2SA1226-T1E3E4			
Q8609	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q8701	8-719-012-57	TRANSISTOR 2SK1399-T1B			
Q8702	8-719-012-57	TRANSISTOR 2SK1399-T1B			
Q8804	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14			
Q8805	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14			
Q8806	8-729-102-07	TRANSISTOR 2SC2223-T1F13F14			
Q8901	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
Q8902	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
Q8903	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
Q8904	8-729-037-53	TRANSISTOR 2SB1462J-QR(TX).SO			
	< RESISTOR >				
R7003	1-220-994-21	RES-CHIP	0.06	1%	1W
R7004	1-220-851-21	RES-CHIP	0.015	1%	1W
R7007	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R7008	1-218-732-11	METAL CHIP	47K	0.5%	1/16W
R7009	1-218-724-11	METAL CHIP	22K	0.5%	1/16W
R7010	1-218-736-11	METAL CHIP	68K	0.5%	1/16W
R7011	1-216-821-11	RES-CHIP	1K	5%	1/16W
R7012	1-216-864-11	SHORT			
R7013	1-216-809-11	RES-CHIP	100	5%	1/16W
R7014	1-216-809-11	RES-CHIP	100	5%	1/16W
R7016	1-216-809-11	RES-CHIP	100	5%	1/16W
R7017	1-216-809-11	RES-CHIP	100	5%	1/16W
R7019	1-216-817-11	RES-CHIP	470	5%	1/16W
R7020	1-216-841-11	RES-CHIP	47K	5%	1/16W
R7021	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7022	1-216-817-11	RES-CHIP	470	5%	1/16W
R7023	1-216-817-11	RES-CHIP	470	5%	1/16W
R7024	1-216-864-11	SHORT			
R7025	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7026	1-216-857-11	RES-CHIP	1M	5%	1/16W
R7028	1-216-857-11	RES-CHIP	1M	5%	1/16W
R7029	1-216-835-11	RES-CHIP	15K	5%	1/16W
R7030	1-216-835-11	RES-CHIP	15K	5%	1/16W
R7031	1-216-864-11	SHORT			
R7032	1-216-864-11	SHORT			
R7033	1-216-797-11	RES-CHIP	10	5%	1/16W
R7036	1-216-864-11	SHORT			
R7039	1-216-864-11	SHORT			
R7046	1-218-736-11	METAL CHIP	68K	0.5%	1/16W
R7201	1-216-801-11	RES-CHIP	22	5%	1/16W
R7202	1-216-801-11	RES-CHIP	22	5%	1/16W
R7205	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7206	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7207	1-216-809-11	RES-CHIP	100	5%	1/16W
R7208	1-216-805-11	RES-CHIP	47	5%	1/16W
R7210	1-216-833-11	RES-CHIP	10K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R7211	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7212	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7213	1-216-805-11	RES-CHIP	47	5%	1/16W
R7214	1-216-805-11	RES-CHIP	47	5%	1/16W
R7215	1-216-805-11	RES-CHIP	47	5%	1/16W
R7216	1-216-803-11	RES-CHIP	33	5%	1/16W
R7219	1-216-809-11	RES-CHIP	100	5%	1/16W
R7220	1-216-809-11	RES-CHIP	100	5%	1/16W
R7221	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R7222	1-216-809-11	RES-CHIP	100	5%	1/16W
R7223	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R7224	1-216-864-11	SHORT			
R7235	1-216-821-11	RES-CHIP	1K	5%	1/16W
R7236	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7238	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7239	1-216-851-11	RES-CHIP	330K	5%	1/16W
R7243	1-216-845-11	RES-CHIP	100K	5%	1/16W
R7244	1-216-845-11	RES-CHIP	100K	5%	1/16W
R7245	1-216-845-11	RES-CHIP	100K	5%	1/16W
R7246	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R7247	1-216-809-11	RES-CHIP	100	5%	1/16W
R7248	1-216-857-11	RES-CHIP	1M	5%	1/16W
R7249	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7250	1-216-809-11	RES-CHIP	100	5%	1/16W
R7251	1-216-864-11	SHORT			
R7252	1-216-804-11	RES-CHIP	39	5%	1/16W
R7253	1-216-804-11	RES-CHIP	39	5%	1/16W
R7254	1-216-804-11	RES-CHIP	39	5%	1/16W
R7256	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7257	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7258	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7259	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7260	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7261	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7262	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7263	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7264	1-216-864-11	SHORT			
R7265	1-216-841-11	RES-CHIP	47K	5%	1/16W
R7266	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7267	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7268	1-216-805-11	RES-CHIP	47	5%	1/16W
R7270	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7271	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7273	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7274	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7275	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7276	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7277	1-216-864-11	SHORT			
R7281	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7282	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7283	1-216-806-11	RES-CHIP	56	5%	1/16W
R7284	1-216-806-11	RES-CHIP	56	5%	1/16W
R7285	1-216-864-11	SHORT			
R7286	1-216-864-11	SHORT			
R7288	1-216-793-11	RES-CHIP	4.7	5%	1/16W
R7289	1-216-793-11	RES-CHIP	4.7	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R7401	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R7403	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7405	1-216-864-11	SHORT				
R7408	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7409	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7410	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7411	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7412	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7413	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7414	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7415	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7417	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7418	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7419	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7420	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7421	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7422	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7423	1-216-850-11	RES-CHIP	270K	5%	1/16W	
R7424	1-216-797-11	RES-CHIP	10	5%	1/16W	
R7430	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7431	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7432	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7433	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7434	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7435	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7436	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7437	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7438	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7439	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7440	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7441	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7442	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7443	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7444	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7445	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7447	1-216-864-11	SHORT				
R7601	1-216-804-11	RES-CHIP	39	5%	1/16W	
R7602	1-216-804-11	RES-CHIP	39	5%	1/16W	
R7603	1-216-805-11	RES-CHIP	47	5%	1/16W	
R7604	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7605	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7606	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7607	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7608	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7610	1-216-810-11	RES-CHIP	120	5%	1/16W	
R7611	1-216-811-11	RES-CHIP	150	5%	1/16W	
R7612	1-216-797-11	RES-CHIP	10	5%	1/16W	
R7613	1-216-864-11	SHORT				
R7614	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7617	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7619	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7622	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7627	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7630	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7638	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7639	1-216-806-11	RES-CHIP	56	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R7640	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7641	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7642	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7643	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7650	1-216-801-11	RES-CHIP	22	5%	1/16W	
R7651	1-216-806-11	RES-CHIP	56	5%	1/16W	
R7652	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7801	1-216-853-11	RES-CHIP	470K	5%	1/16W	
R7802	1-216-864-11	SHORT				
R7803	1-216-837-11	RES-CHIP	22K	5%	1/16W	
R7804	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7805	1-216-815-11	RES-CHIP	330	5%	1/16W	
R7806	1-216-813-11	RES-CHIP	220	5%	1/16W	
R7807	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7808	1-216-813-11	RES-CHIP	220	5%	1/16W	
R7809	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7811	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	
R7812	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7813	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7814	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7817	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7818	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7819	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7820	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	
R7822	1-218-705-11	METAL CHIP	3.6K	0.50%	1/16W	
R7823	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R7826	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7828	1-216-853-11	RES-CHIP	470K	5%	1/16W	
R7829	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7831	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7833	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7837	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7840	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7842	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7850	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7857	1-216-801-11	RES-CHIP	22	5%	1/16W	
R7858	1-216-801-11	RES-CHIP	22	5%	1/16W	
R7859	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R7862	1-218-687-11	METAL CHIP	620	0.5%	1/16W	
R7863	1-218-676-11	METAL CHIP	220	0.5%	1/16W	
R7864	1-216-814-11	RES-CHIP	270	5%	1/16W	
R7865	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R7866	1-218-676-11	METAL CHIP	220	0.5%	1/16W	
R7867	1-218-676-11	METAL CHIP	220	0.5%	1/16W	
R7868	1-216-803-11	RES-CHIP	33	5%	1/16W	
R7869	1-216-803-11	RES-CHIP	33	5%	1/16W	
R7871	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7872	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7873	1-216-803-11	RES-CHIP	33	5%	1/16W	
R7874	1-216-803-11	RES-CHIP	33	5%	1/16W	
R7876	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7877	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7878	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7879	1-218-695-11	METAL CHIP	1.3K	0.5%	1/16W	
R7880	1-218-695-11	METAL CHIP	1.3K	0.5%	1/16W	
R7881	1-216-820-11	RES-CHIP	820	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R7884	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7885	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R7886	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W	
R7887	1-216-855-11	RES-CHIP	680K	5%	1/16W	
R7888	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W	
R7889	1-216-855-11	RES-CHIP	680K	5%	1/16W	
R7890	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7892	1-218-720-11	METAL CHIP	15K	0.5%	1/16W	
R7893	1-218-720-11	METAL CHIP	15K	0.5%	1/16W	
R7894	1-218-720-11	METAL CHIP	15K	0.5%	1/16W	
R7896	1-216-841-11	RES-CHIP	47K	5%	1/16W	
R7897	1-216-815-11	RES-CHIP	330	5%	1/16W	
R7899	1-216-815-11	RES-CHIP	330	5%	1/16W	
R7904	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7905	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7906	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7907	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7908	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7909	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7910	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R7911	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R7912	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R7913	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7914	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7915	1-216-818-11	RES-CHIP	560	5%	1/16W	
R7916	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7917	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7918	1-216-817-11	RES-CHIP	470	5%	1/16W	
R7919	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7920	1-216-809-11	RES-CHIP	100	5%	1/16W	
R7921	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8604	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8605	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8606	1-216-819-11	RES-CHIP	680	5%	1/16W	
R8607	1-216-819-11	RES-CHIP	680	5%	1/16W	
R8608	1-216-819-11	RES-CHIP	680	5%	1/16W	
R8609	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8610	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8611	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8612	1-216-820-11	RES-CHIP	820	5%	1/16W	
R8613	1-216-820-11	RES-CHIP	820	5%	1/16W	
R8614	1-216-820-11	RES-CHIP	820	5%	1/16W	
R8615	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8616	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8617	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8618	1-218-679-11	METAL CHIP	300	0.5%	1/16W	
R8619	1-218-679-11	METAL CHIP	300	0.5%	1/16W	
R8620	1-218-675-11	METAL CHIP	200	0.5%	1/16W	
R8621	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8622	1-218-679-11	METAL CHIP	300	0.5%	1/16W	
R8623	1-218-679-11	METAL CHIP	300	0.5%	1/16W	
R8624	1-218-675-11	METAL CHIP	200	0.5%	1/16W	
R8625	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8626	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8627	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8628	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8629	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	
R8630	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	
R8631	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	
R8632	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8636	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8637	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8638	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8639	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R8641	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8642	1-218-703-11	METAL CHIP	3K	0.5%	1/16W	
R8643	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8644	1-216-845-11	RES-CHIP	100K	5%	1/16W	
R8645	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8646	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R8647	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8648	1-216-830-11	RES-CHIP	5.6K	5%	1/16W	
R8649	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8650	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8651	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8652	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8653	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8656	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R8657	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R8658	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	
R8703	1-216-809-11	RES-CHIP	100	5%	1/16W	
R8709	1-216-803-11	RES-CHIP	33	5%	1/16W	
R8711	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8712	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8713	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8714	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8715	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8716	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8717	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8718	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8719	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8720	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8721	1-216-864-11	SHORT				
R8722	1-216-864-11	SHORT				
R8724	1-216-864-11	SHORT				
R8725	1-216-814-11	RES-CHIP	270	5%	1/16W	
R8726	1-216-864-11	SHORT				
R8727	1-216-806-11	RES-CHIP	56	5%	1/16W	
R8728	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8733	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8734	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R8736	1-216-797-11	RES-CHIP	10	5%	1/16W	
R8737	1-216-797-11	RES-CHIP	10	5%	1/16W	
R8744	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8747	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R8748	1-218-692-11	METAL CHIP	1K	0.5%	1/16W	
R8750	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8751	1-216-801-11	RES-CHIP	22	5%	1/16W	
R8752	1-216-864-11	SHORT				
R8806	1-216-817-11	RES-CHIP	470	5%	1/16W	
R8807	1-216-805-11	RES-CHIP	47	5%	1/16W	

REF.NO.	PART NO.	DESCRIPTION			REMARK
R8808	1-216-805-11	RES-CHIP	47	5%	1/16W
R8809	1-216-805-11	RES-CHIP	47	5%	1/16W
R8810	1-216-801-11	RES-CHIP	22	5%	1/16W
R8811	1-216-805-11	RES-CHIP	47	5%	1/16W
R8813	1-216-801-11	RES-CHIP	22	5%	1/16W
R8817	1-218-712-11	METAL CHIP	6.8K	0.5%	1/16W
R8818	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R8819	1-218-740-11	METAL CHIP	100K	0.5%	1/16W
R8820	1-218-664-11	METAL CHIP	68	0.5%	1/16W
R8821	1-218-664-11	METAL CHIP	68	0.5%	1/16W
R8822	1-218-664-11	METAL CHIP	68	0.5%	1/16W
R8827	1-216-864-11	SHORT			
R8828	1-216-864-11	SHORT			
R8829	1-216-864-11	SHORT			
R8835	1-216-809-11	RES-CHIP	100	5%	1/16W
R8836	1-216-809-11	RES-CHIP	100	5%	1/16W
R8837	1-216-809-11	RES-CHIP	100	5%	1/16W
R8839	1-216-817-11	RES-CHIP	470	5%	1/16W
R8840	1-216-817-11	RES-CHIP	470	5%	1/16W
R8841	1-216-817-11	RES-CHIP	470	5%	1/16W
R8843	1-216-801-11	RES-CHIP	22	5%	1/16W
R8844	1-216-801-11	RES-CHIP	22	5%	1/16W
R8845	1-216-801-11	RES-CHIP	22	5%	1/16W
R8849	1-216-809-11	RES-CHIP	100	5%	1/16W
R8850	1-216-809-11	RES-CHIP	100	5%	1/16W
R8851	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8852	1-216-821-11	RES-CHIP	1K	5%	1/16W
R8854	1-216-809-11	RES-CHIP	100	5%	1/16W
R8857	1-216-805-11	RES-CHIP	47	5%	1/16W
R8860	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8870	1-216-801-11	RES-CHIP	22	5%	1/16W
R8871	1-216-805-11	RES-CHIP	47	5%	1/16W
R8901	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8902	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8903	1-216-864-11	SHORT			
R8904	1-216-864-11	SHORT			
R8905	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8906	1-216-805-11	RES-CHIP	47	5%	1/16W
R8907	1-216-805-11	RES-CHIP	47	5%	1/16W
R8909	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8911	1-216-797-11	RES-CHIP	10	5%	1/16W
R8912	1-216-797-11	RES-CHIP	10	5%	1/16W
R8914	1-216-809-11	RES-CHIP	100	5%	1/16W
R8915	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8916	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R8917	1-216-845-11	RES-CHIP	100K	5%	1/16W
R8918	1-216-845-11	RES-CHIP	100K	5%	1/16W
R8919	1-216-864-11	SHORT			
R8920	1-216-864-11	SHORT			
R8921	1-216-809-11	RES-CHIP	100	5%	1/16W
R8924	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8925	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8926	1-216-809-11	RES-CHIP	100	5%	1/16W
R8928	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8929	1-216-809-11	RES-CHIP	100	5%	1/16W
R8930	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8931	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8932	1-216-837-11	RES-CHIP	22K	5%	1/16W
R8933	1-216-837-11	RES-CHIP	22K	5%	1/16W
R8934	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R8935	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R8937	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8938	1-216-829-11	RES-CHIP	4.7K	5%	1/16W

< NETWORK RESISTOR >

REF.NO.	PART NO.	DESCRIPTION		REMARK
RB7004	1-233-575-11	RES, CHIP NETWORK	22	
RB7005	1-233-575-11	RES, CHIP NETWORK	22	
RB7006	1-233-575-11	RES, CHIP NETWORK	22	
RB7007	1-233-575-11	RES, CHIP NETWORK	22	
RB7008	1-233-575-11	RES, CHIP NETWORK	22	
RB7009	1-233-575-11	RES, CHIP NETWORK	22	
RB7010	1-233-575-11	RES, CHIP NETWORK	22	
RB7011	1-233-575-11	RES, CHIP NETWORK	22	
RB7012	1-236-908-11	RES, CHIP NETWORK	10K	
RB7013	1-236-908-11	RES, CHIP NETWORK	10K	
RB7014	1-236-908-11	RES, CHIP NETWORK	10K	
RB7201	1-233-575-11	RES, CHIP NETWORK	22	
RB7202	1-233-575-11	RES, CHIP NETWORK	22	
RB7203	1-233-575-11	RES, CHIP NETWORK	22	
RB7204	1-233-575-11	RES, CHIP NETWORK	22	
RB7205	1-233-575-11	RES, CHIP NETWORK	22	
RB7206	1-233-575-11	RES, CHIP NETWORK	22	
RB7207	1-233-575-11	RES, CHIP NETWORK	22	
RB7208	1-233-575-11	RES, CHIP NETWORK	22	
RB7214	1-233-575-11	RES, CHIP NETWORK	22	
RB7215	1-233-575-11	RES, CHIP NETWORK	22	
RB7216	1-233-575-11	RES, CHIP NETWORK	22	
RB7217	1-233-575-11	RES, CHIP NETWORK	22	
RB7221	1-233-575-11	RES, CHIP NETWORK	22	
RB7222	1-233-575-11	RES, CHIP NETWORK	22	
RB7223	1-233-575-11	RES, CHIP NETWORK	22	
RB7224	1-236-908-11	RES, CHIP NETWORK	10K	
RB7601	1-239-409-11	RES, CHIP NETWORK	47	
RB7602	1-239-409-11	RES, CHIP NETWORK	47	
RB7603	1-239-409-11	RES, CHIP NETWORK	47	
RB7604	1-239-409-11	RES, CHIP NETWORK	47	
RB7605	1-239-409-11	RES, CHIP NETWORK	47	
RB7606	1-239-409-11	RES, CHIP NETWORK	47	
RB7607	1-239-409-11	RES, CHIP NETWORK	47	
RB7608	1-239-409-11	RES, CHIP NETWORK	47	
RB7609	1-239-409-11	RES, CHIP NETWORK	47	
RB7610	1-239-409-11	RES, CHIP NETWORK	47	
RB7611	1-239-409-11	RES, CHIP NETWORK	47	
RB7612	1-239-409-11	RES, CHIP NETWORK	47	
RB7613	1-239-409-11	RES, CHIP NETWORK	47	
RB7614	1-239-409-11	RES, CHIP NETWORK	47	
RB7615	1-239-409-11	RES, CHIP NETWORK	47	
RB7616	1-239-409-11	RES, CHIP NETWORK	47	
RB7617	1-239-409-11	RES, CHIP NETWORK	47	
RB7618	1-239-409-11	RES, CHIP NETWORK	47	
RB7619	1-239-409-11	RES, CHIP NETWORK	47	

REF.NO.	PART NO.	DESCRIPTION	REMARK
RB7620	1-239-409-11	RES, CHIP NETWORK 47	
RB7624	1-239-409-11	RES, CHIP NETWORK 47	
RB7625	1-239-409-11	RES, CHIP NETWORK 47	
RB7626	1-239-409-11	RES, CHIP NETWORK 47	
RB7627	1-239-409-11	RES, CHIP NETWORK 47	
RB7628	1-239-409-11	RES, CHIP NETWORK 47	
RB7629	1-239-409-11	RES, CHIP NETWORK 47	
RB7630	1-239-409-11	RES, CHIP NETWORK 47	
RB7632	1-233-575-11	RES, CHIP NETWORK 22	
RB7634	1-233-575-11	RES, CHIP NETWORK 22	
RB7635	1-233-575-11	RES, CHIP NETWORK 22	
RB7636	1-233-575-11	RES, CHIP NETWORK 22	
RB7637	1-233-575-11	RES, CHIP NETWORK 22	
RB7804	1-239-409-11	RES, CHIP NETWORK 47	
RB7805	1-239-409-11	RES, CHIP NETWORK 47	
RB7806	1-239-409-11	RES, CHIP NETWORK 47	
RB7807	1-239-409-11	RES, CHIP NETWORK 47	
RB7808	1-239-409-11	RES, CHIP NETWORK 47	
RB7809	1-239-409-11	RES, CHIP NETWORK 47	
RB7810	1-239-409-11	RES, CHIP NETWORK 47	
RB7811	1-239-409-11	RES, CHIP NETWORK 47	
RB7813	1-239-409-11	RES, CHIP NETWORK 47	
RB7814	1-239-409-11	RES, CHIP NETWORK 47	
RB8601	1-233-575-11	RES, CHIP NETWORK 22	
RB8602	1-233-575-11	RES, CHIP NETWORK 22	
RB8603	1-233-575-11	RES, CHIP NETWORK 22	
RB8604	1-233-575-11	RES, CHIP NETWORK 22	
RB8605	1-233-575-11	RES, CHIP NETWORK 22	
RB8606	1-233-575-11	RES, CHIP NETWORK 22	
RB8701	1-239-409-11	RES, CHIP NETWORK 47	
RB8702	1-239-409-11	RES, CHIP NETWORK 47	
RB8703	1-233-575-11	RES, CHIP NETWORK 22	
RB8704	1-239-409-11	RES, CHIP NETWORK 47	
RB8705	1-233-575-11	RES, CHIP NETWORK 22	
RB8706	1-239-409-11	RES, CHIP NETWORK 47	
RB8707	1-233-575-11	RES, CHIP NETWORK 22	
RB8708	1-239-409-11	RES, CHIP NETWORK 47	
RB8709	1-233-575-11	RES, CHIP NETWORK 22	
RB8710	1-239-409-11	RES, CHIP NETWORK 47	
RB8711	1-239-409-11	RES, CHIP NETWORK 47	
RB8712	1-239-409-11	RES, CHIP NETWORK 47	
RB8713	1-239-409-11	RES, CHIP NETWORK 47	
RB8714	1-239-409-11	RES, CHIP NETWORK 47	
RB8715	1-239-409-11	RES, CHIP NETWORK 47	
RB8716	1-239-409-11	RES, CHIP NETWORK 47	
RB8717	1-239-409-11	RES, CHIP NETWORK 47	
RB8805	1-233-575-11	RES, CHIP NETWORK 22	
RB8806	1-233-575-11	RES, CHIP NETWORK 22	
RB8807	1-233-575-11	RES, CHIP NETWORK 22	
RB8808	1-233-575-11	RES, CHIP NETWORK 22	
RB8809	1-239-409-11	RES, CHIP NETWORK 47	
RB8810	1-239-409-11	RES, CHIP NETWORK 47	
RB8811	1-239-409-11	RES, CHIP NETWORK 47	
RB8812	1-239-409-11	RES, CHIP NETWORK 47	
RB8813	1-239-409-11	RES, CHIP NETWORK 47	
RB8814	1-239-409-11	RES, CHIP NETWORK 47	
RB8815	1-239-409-11	RES, CHIP NETWORK 47	
RB8816	1-239-409-11	RES, CHIP NETWORK 47	

< TUNER >

REF.NO.	PART NO.	DESCRIPTION	REMARK
TU7001	8-598-583-00	UNIT, DIGITAL TUNER BTD-DA403	

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION	REMARK
X7201	1-579-886-21	VIBRATOR, CRYSTAL	
X7202	1-767-262-31	VIBRATOR, CRYSTAL	
X8701	1-781-887-21	VIBRATOR, CRYSTAL	
X8901	1-781-945-21	VIBRATOR, CERAMIC	

****

QI BOARD

****

Note: The QI board is not field repairable and cannot be ordered independently. If service is required, use the following part number to order a replacement Q-box which includes the complete QM and QI board assemblies.

SEE SUPPLEMENT-2 Q-BOX, COMPLETE (KDP-57)
SEE SUPPLEMENT-2 Q-BOX, COMPLETE (KDP-65)

****

< CAPACITOR >

REF.NO.	PART NO.	DESCRIPTION				REMARK
C9201	1-124-779-00	ELECT CHIP	10µF	20%	16V	
C9202	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9203	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9204	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9205	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9206	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9207	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9208	1-126-204-11	ELECT CHIP	47µF	20%	16V	
C9209	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9210	1-126-395-11	ELECT CHIP	22µF	20%	16V	
C9211	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9212	1-126-395-11	ELECT CHIP	22µF	20%	16V	
C9213	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9214	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9215	1-126-395-11	ELECT CHIP	22µF	20%	16V	
C9216	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9219	1-162-923-11	CERAMIC CHIP	47pF	5%	50V	
C9220	1-162-926-11	CERAMIC CHIP	82pF	5%	50V	
C9221	1-162-919-11	CERAMIC CHIP	22pF	5%	50V	
C9222	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9223	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9224	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V	
C9225	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9226	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9227	1-164-156-11	CERAMIC CHIP	0.1µF		25V	
C9228	1-164-388-91	CERAMIC CHIP	270pF	5%	50V	
C9229	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V	
C9230	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V	
C9231	1-164-156-11	CERAMIC CHIP	0.1µF		25V	

REF.NO.	PART NO.	DESCRIPTION			REMARK
C9232	1-164-388-91	CERAMIC CHIP	270pF	5%	50V
C9233	1-124-779-00	ELECT CHIP	10µF	20%	16V
C9234	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9235	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9236	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9237	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9238	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9239	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9240	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C9241	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9242	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9243	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9244	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9245	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9246	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9247	1-124-779-00	ELECT CHIP	10µF	20%	16V
C9248	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C9249	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9250	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C9251	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C9252	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9253	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C9254	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9256	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9257	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9258	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9259	1-126-206-11	ELECT CHIP	100µF	20%	6.3V
C9260	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9261	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9262	1-124-779-00	ELECT CHIP	10µF	20%	16V
C9263	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9264	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9265	1-164-188-11	CERAMIC CHIP	470pF	2%	50V
C9267	1-164-188-11	CERAMIC CHIP	470pF	2%	50V
C9268	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9270	1-124-779-00	ELECT CHIP	10µF	20%	16V
C9271	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9273	1-115-156-11	CERAMIC CHIP	1µF		10V
C9276	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9277	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9278	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9279	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9281	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9282	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9283	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9284	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9285	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9286	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C9287	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C9288	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C9289	1-162-915-11	CERAMIC CHIP	10pF	0.5pF	50V
C9290	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9292	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9295	1-124-779-00	ELECT CHIP	10µF	20%	16V
C9296	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9297	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9298	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9299	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9301	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9302	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9303	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9304	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9305	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9306	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9307	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9308	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9309	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9310	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9311	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9312	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9313	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9314	1-164-156-11	CERAMIC CHIP	0.1µF		25V
C9315	1-164-156-11	CERAMIC CHIP	0.1µF		25V

< CONNECTOR >

CN9203	* 1-815-164-11	CONNECTOR, I LINK (FLANGE TYPE)
CN9204	* 1-815-164-11	CONNECTOR, I LINK (FLANGE TYPE)
CN9206	* 1-564-507-11	PLUG,CONNECTOR 4P

< DIODE >

D9201	8-719-060-99	DIODE SML-210MT-T86
D9202	8-719-060-99	DIODE SML-210MT-T86
D9203	8-719-060-99	DIODE SML-210MT-T86
D9204	8-719-060-99	DIODE SML-210MT-T86
D9205	8-719-060-99	DIODE SML-210MT-T86
D9206	8-719-060-99	DIODE SML-210MT-T86
D9207	8-719-060-99	DIODE SML-210MT-T86
D9208	8-719-820-05	DIODE MA152WA-TX
D9209	8-719-404-50	DIODE MA111-TX
D9210	8-719-060-99	DIODE SML-210MT-T86

< FERRITEBEAD >

FB9202	1-414-760-21	FERRITE	0µH
FB9204	1-414-760-21	FERRITE	0µH
FB9211	1-414-760-21	FERRITE	0µH

< FILTER >

FL9201	1-400-087-21	FILTER, EMI REMOVAL (SMD)	
FL9202	1-400-087-21	FILTER, EMI REMOVAL (SMD)	
FL9203	1-781-667-21	INDUCTOR	0µH
FL9204	1-781-667-21	INDUCTOR	0µH
FL9205	1-781-667-21	INDUCTOR	0µH
FL9206	1-781-667-21	INDUCTOR	0µH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	< IC >				
IC9201	8-759-475-53	IC TC74LCX541FT(EL)			
IC9202	8-752-400-16	IC CXD3203R			
IC9203	8-752-396-41	IC CXD1945R			
IC9204	8-759-669-46	IC LM358PWR-12			
IC9205	8-759-680-30	IC µPD82442GN-001-LMU			
IC9206	8-759-589-36	IC MT48LC4M16A2TG-75			
IC9207	8-759-530-29	IC TC4069UBFT(EL,N)			
IC9208	8-759-475-43	IC TC74LCX125FT(EL)			
IC9209	6-700-335-01	IC µPD30200GD-80-LBB			
IC9210	8-759-689-92	IC MBM29LV160BE-90TN			
IC9211	8-759-689-92	IC MBM29LV160BE-90TN			
IC9212	6-800-499-01	IC MBM29LV160BE-90TN-V1.0			
IC9213	8-759-491-46	IC TC74VHC04FT(EL)			
IC9214	8-759-491-46	IC TC74VHC04FT(EL)			
IC9215	8-759-475-39	IC TC74LCX74FT(EL)			
	< COIL >				
L9202	1-414-078-11	INDUCTOR	10µH		
L9204	1-543-949-22	FERRITE	0µH		
	< TRANSISTOR >				
Q9201	8-729-037-52	TRANSISTOR 2SD2216J-QR(TX).SO			
	< RESISTOR >				
R9201	1-216-864-11	SHORT			
R9203	1-216-864-11	SHORT			
R9204	1-216-864-11	SHORT			
R9205	1-216-864-11	SHORT			
R9206	1-216-864-11	SHORT			
R9207	1-216-864-11	SHORT			
R9208	1-216-864-11	SHORT			
R9209	1-216-864-11	SHORT			
R9210	1-216-864-11	SHORT			
R9211	1-216-864-11	SHORT			
R9213	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9214	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9215	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9216	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9217	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9218	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9219	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9220	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9222	1-216-864-11	SHORT			
R9226	1-216-864-11	SHORT			
R9228	1-216-864-11	SHORT			
R9229	1-216-864-11	SHORT			
R9231	1-216-864-11	SHORT			
R9232	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9233	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9234	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9235	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9236	1-216-864-11	SHORT			

REF.NO.	PART NO.	DESCRIPTION			REMARK
R9237	1-216-864-11	SHORT			
R9247	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9250	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9251	1-216-864-11	SHORT			
R9252	1-216-813-11	RES-CHIP	220	5%	1/16W
R9253	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R9254	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R9256	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9257	1-216-836-11	RES-CHIP	18K	5%	1/16W
R9258	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9259	1-216-815-11	RES-CHIP	330	5%	1/16W
R9260	1-216-817-11	RES-CHIP	470	5%	1/16W
R9261	1-216-812-11	RES-CHIP	180	5%	1/16W
R9262	1-216-811-11	RES-CHIP	150	5%	1/16W
R9263	1-216-806-11	RES-CHIP	56	5%	1/16W
R9264	1-216-810-11	RES-CHIP	120	5%	1/16W
R9265	1-216-806-11	RES-CHIP	56	5%	1/16W
R9266	1-216-806-11	RES-CHIP	56	5%	1/16W
R9267	1-216-810-11	RES-CHIP	120	5%	1/16W
R9268	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9269	1-218-272-11	RES-CHIP	5.1K	5%	1/16W
R9270	1-216-806-11	RES-CHIP	56	5%	1/16W
R9271	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9272	1-216-806-11	RES-CHIP	56	5%	1/16W
R9273	1-216-806-11	RES-CHIP	56	5%	1/16W
R9274	1-216-806-11	RES-CHIP	56	5%	1/16W
R9275	1-218-272-11	RES-CHIP	5.1K	5%	1/16W
R9276	1-216-806-11	RES-CHIP	56	5%	1/16W
R9277	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9278	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9279	1-216-864-11	SHORT			
R9280	1-216-864-11	SHORT			
R9281	1-216-864-11	SHORT			
R9282	1-216-864-11	SHORT			
R9283	1-216-864-11	SHORT			
R9284	1-216-864-11	SHORT			
R9285	1-216-864-11	SHORT			
R9286	1-216-864-11	SHORT			
R9287	1-216-864-11	SHORT			
R9288	1-216-803-11	RES-CHIP	33	5%	1/16W
R9289	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9290	1-219-570-11	RES-CHIP	10M	5%	1/16W
R9291	1-216-851-11	RES-CHIP	330K	5%	1/16W
R9292	1-216-864-11	SHORT			
R9293	1-216-821-11	RES-CHIP	1K	5%	1/16W
R9295	1-216-809-11	RES-CHIP	100	5%	1/16W
R9296	1-216-809-11	RES-CHIP	100	5%	1/16W
R9340	1-216-817-11	RES-CHIP	470	5%	1/16W
R9341	1-216-817-11	RES-CHIP	470	5%	1/16W
R9342	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9343	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9344	1-216-864-11	SHORT			
R9345	1-216-864-11	SHORT			
R9346	1-216-864-11	SHORT			
R9347	1-216-864-11	SHORT			
R9348	1-216-833-11	RES-CHIP	10K	5%	1/16W

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R9349	1-216-864-11	SHORT			
R9351	1-216-864-11	SHORT			
R9352	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9353	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9355	1-216-864-11	SHORT			
R9356	1-216-864-11	SHORT			
R9358	1-216-864-11	SHORT			
R9359	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9360	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9361	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9362	1-216-864-11	SHORT			
R9364	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R9365	1-216-864-11	SHORT			
R9366	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9367	1-216-845-11	RES-CHIP	100K	5%	1/16W
R9368	1-216-813-11	RES-CHIP	220	5%	1/16W
R9369	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R9370	1-216-864-11	SHORT			
R9371	1-216-841-11	RES-CHIP	47K	5%	1/16W
R9372	1-216-808-11	RES-CHIP	82	5%	1/16W
R9373	1-216-864-11	SHORT			
R9374	1-216-808-11	RES-CHIP	82	5%	1/16W
R9375	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R9376	1-216-801-11	RES-CHIP	22	5%	1/16W
R9377	1-216-805-11	RES-CHIP	47	5%	1/16W
R9378	1-216-807-11	RES-CHIP	68	5%	1/16W
R9379	1-216-864-11	SHORT			
R9381	1-216-864-11	SHORT			
R9382	1-216-833-11	RES-CHIP	10K	5%	1/16W
R9391	1-216-833-11	RES-CHIP	10K	5%	1/16W

< NETWORK RESISTOR >

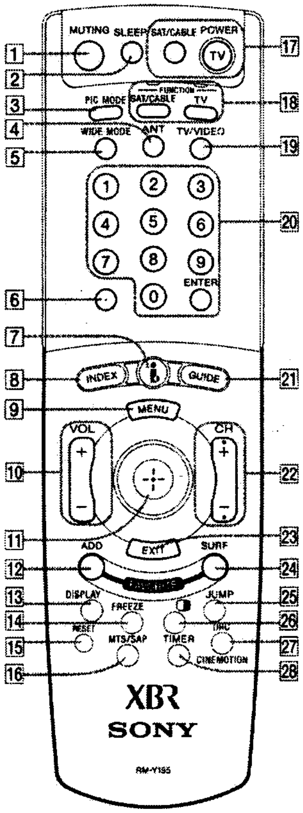
REF.NO.	PART NO.	DESCRIPTION	REMARK
RB9201	1-233-575-11	RES, CHIP NETWORK	22
RB9202	1-233-575-11	RES, CHIP NETWORK	22
RB9203	1-233-575-11	RES, CHIP NETWORK	22
RB9204	1-233-575-11	RES, CHIP NETWORK	22
RB9205	1-234-525-21	RES, CHIP NETWORK	56
RB9206	1-234-525-21	RES, CHIP NETWORK	56
RB9207	1-234-525-21	RES, CHIP NETWORK	56
RB9208	1-234-525-21	RES, CHIP NETWORK	56
RB9209	1-234-525-21	RES, CHIP NETWORK	56
RB9210	1-234-525-21	RES, CHIP NETWORK	56
RB9211	1-234-525-21	RES, CHIP NETWORK	56
RB9212	1-234-525-21	RES, CHIP NETWORK	56
RB9213	1-234-525-21	RES, CHIP NETWORK	56
RB9224	1-234-525-21	RES, CHIP NETWORK	56
RB9225	1-233-575-11	RES, CHIP NETWORK	22
RB9226	1-233-575-11	RES, CHIP NETWORK	22
RB9227	1-233-575-11	RES, CHIP NETWORK	22
RB9228	1-233-575-11	RES, CHIP NETWORK	22

< CRYSTAL >

REF.NO.	PART NO.	DESCRIPTION
X9202	1-579-886-21	VIBRATOR, CRYSTAL
X9203	1-767-779-21	VIBRATOR, CRYSTAL

Button Descriptions

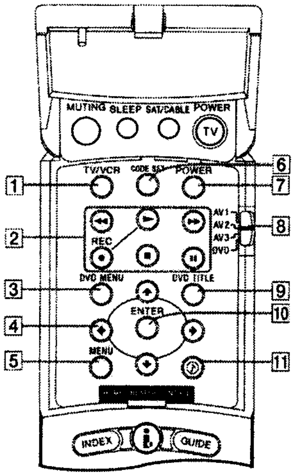
The following table describes the buttons on the remote control's outside and inside panels.


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
MUTING
SLEEP
SAT/CABLE
POWER
TV
FUNCTION
PIC MODE
SAT/CABLE
TV
WIDE MODE
ANT
TV/VIDEO
1
2
3
4
5
6
7
8
9
0
ENTER
INDEX
GUIDE
MENU
VOL
CH
ADD
EXIT
SURF
DISPLAY
FREEZE
JUMP
RESET
MTS/SAP
TIMER
CINEMOTION
XBR
SONY
RM-Y195

Outside Panel

Button	*Description*
1 MUTING	Press to mute the sound. Press again or press VOL+ to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until Sleep Off appears. While the Sleep feature is set, press once to view remaining time.
3 PIC MODE	Press repeatedly to step through the video picture modes: Vivid, Standard, Movie, Game, Pro. Also available in the Video menu. For details, see page 52.
4 ANT	Press to change between the VHF/UHF input and the CABLE input.
5 WIDE MODE	Press repeatedly to step through the Wide Mode settings: Wide Zoom, Normal, Full, Zoom. Also available in the Screen Mode menu. For details, see pages 43 and 56.
6 ⊙	Use with 0 – 9 and ENTER buttons to select subchannels (for example, 2.1). For details on selecting subchannels, see page 38.
7 i	Press to display the i.LINK Control Panel. There is also an i.LINK button on the front panel of the projection TV (see page 13). For details on using the i.LINK Control Panel, see page 48.
8 INDEX	Press to display the Scrolling Channel Index. For details, see page 39.
9 MENU	Press to display the projection TV on-screen menu. Press again to exit from the menus. For details, see page 51.
10 VOL	Press to adjust the volume.
11 ⊕	Move the joystick ← →↑↓ to move the on-screen cursor. To select an item, press the center of the joystick (⊕).
12 ADD FAVORITE	Press to add the current channel to the Favorite Channels list. For details, see page 40.
13 DISPLAY	Press once to display the channel number, channel label (if set), time, and other information. When the DTV is receiving a digital signal with Dolby Digital, the decoding type is displayed (Dolby Digital or Dolby Digital Pro Logic). Press again to turn Display off.
14 FREEZE	Press to freeze the window picture. Press again to restore the picture. For details, see page 47.

Button	***Description***
15 RESET	Press while a menu is displayed (page 51 to 66) to reset the settings to the factory defaults. Also used to clear Favorite Channels (see page 42).
16 MTS/SAP	Press repeatedly to step through the Multi-channel TV Sound (MTS) options: Stereo, Auto SAP, and Mono. Also available in the Audio menu. For details, see page 54.
17 POWER buttons (GREEN)	Press to turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 68.
18 FUNCTION buttons	Press to select the equipment (SAT/CABLE or TV) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
19 TV/VIDEO	Press repeatedly to step through the video equipment connected to your projection TV's video inputs.
20 0 – 9 and ENTER	Press 0 - 9 to select a channel — the channel changes after 2 seconds. Press ENTER to select immediately.
21 GUIDE	Press to display the program guide. For details, see page 38.
22 CH	Press to scan through channels. To scan rapidly through channels, press and hold down either CH button.
23 EXIT	Press to exit the on-screen menu or display and return to normal viewing.
24 SURF FAVORITE	Press to display the Favorite Channels list. For details, see page 41.
25 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
26 ◑ (TWIN VIEW)	Press to turn on and off Twin View. For details, see pages 44 to 46.
27 DRC CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. Also available in the Video menu. For details, see page 53.
28 TIMER	Press to program the projection TV to turn on and off and tune to a specific channel at two scheduled viewing times (see page 49). Also available in the Setup menu (see page 66).

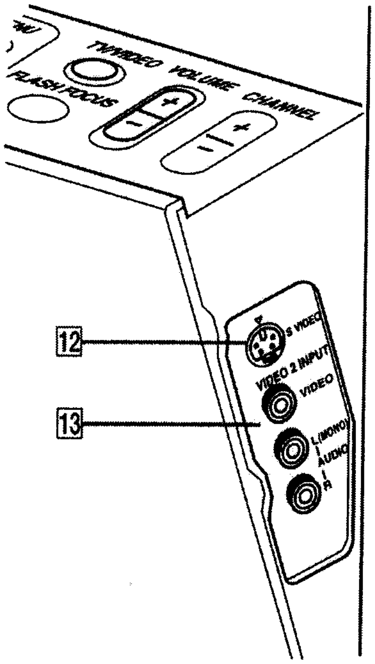

MUTING
SLEEP
SAT/CABLE
POWER
TV
TV/VCR
CODE SET
POWER
AV1
AV2
AV3
DVD
REC
DVD MENU
DVD TITLE
ENTER
MENU
INDEX
GUIDE
1
2
3
4
5
6
7
8
9
10
11

Inside Panel

You can access the following buttons by lifting up the outside panel.

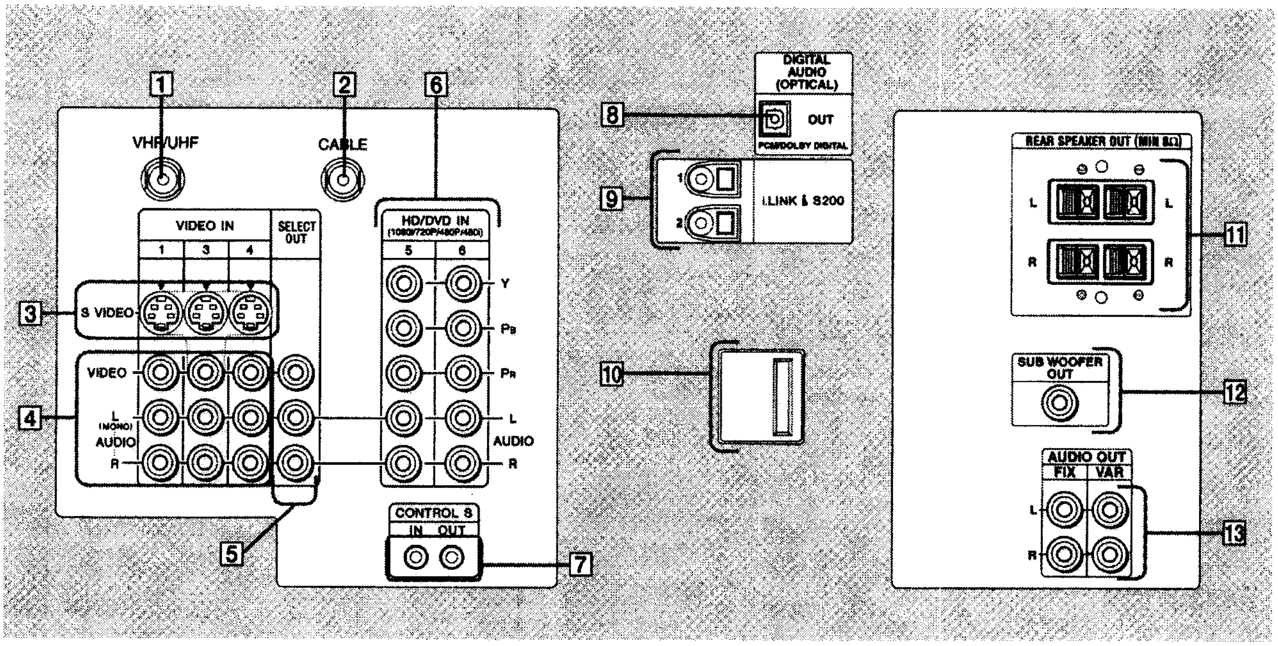
Button	*Description*
1 TV/VCR	Press to change the VHF/UHF output of the VCR.
2 Transport Buttons	◀◀ Rewind ▶ Play ● Record (press together with ▶) ■ Stop ▶▶ Fast-forward ❚❚ Pause
3 DVD MENU	Press to display the DVD disc menu.
4 ⬅ ➡⬆⬇	Press ⬅ ➡⬆⬇ to move the on-screen cursor.
5 MENU	Press to display the DVD setup menu.
6 CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 68.
7 POWER	Press to turn on and off other audio/video equipment you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 68.
8 AV1 AV2 AV3 DVD	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 68.
9 DVD TITLE	Press to display the DVD title.
10 ENTER	Press to select.
11 Ⓓ	Press repeatedly to step through the Audio Effect options: Dolby Surround, Simulated, and Off. Also available in the Audio menu. For details, see page 54.

Side of Front Panel


TV/VIDEO
VOLUME
CHANNEL
FLASH FOCUS
+
−
+
−
12
13
S VIDEO
VIDEO 2 INPUT
VIDEO
L(MONO)
AUDIO
R

12	S VIDEO 2 INPUT	Connects to the S VIDEO OUT jack of your camcorder or other S VIDEO equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
13	VIDEO 2 INPUT VIDEO/L(MONO)-AUDIO-R	Connect to the audio and video OUT jacks on your camcorder or other video component.

Rear Panel


1
2
6
VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
HD/DVD IN (1080i/720P/480P/480i)
5
6
Y
PB
PR
L
AUDIO
R
3
S VIDEO
4
VIDEO
L (MONO)
AUDIO
R
5
CONTROL S
IN
OUT
7
DIGITAL AUDIO (OPTICAL)
OUT
PCM/DOLBY DIGITAL
8
9
1
2
i.LINK S200
10
REAR SPEAKER OUT (MIN 8Ω)
L
R
11
SUB WOOFER OUT
12
AUDIO OUT
FIX
VAR
L
R
13

Connection		**Description**
1	VHF/UHF	Connects to your VHF/UHF antenna. VHF/UHF is the digital TV antenna input.
2	CABLE	Connects to your cable source.
3	S VIDEO IN 1/3/4	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
4	VIDEO IN 1/3/4 VIDEO/L(MONO)-AUDIO-R	Connect to the audio and video OUT jacks on your VCR or other video component. A 6th video input (VIDEO 2) is located on the front panel of the projection TV. The Audio and Video IN jacks provide better picture quality than the VHF/UHF IN jack.
5	SELECT OUT	Connect to the audio and video IN jacks on your VCR or other video component. The output signal is determined by the SELECT OUT setting in the Setup menu (see page 65).
6	HD/DVD IN (1080i/720p/480p/480i) VIDEO IN 5/6	Connect to your DVD player's or digital set-top box's component video (Y, PB, PR) and audio (L/R) jacks.
7	CONTROL S IN/OUT	Allows the projection TV to receive (IN) and send (OUT) remote control signals to other Sony infrared-controlled audio or video components.
8	DIGITAL AUDIO (OPTICAL) OUT PCM/DOLBY DIGITAL	Connect to the optical audio input of an audio component that is Dolby Digital and PCM compatible.

continued on next page

Connection	Description
9 i.LINK S200	Used for connecting i.LINK equipped devices.
10 Service Only	For Sony service use only.
11 REAR SPEAKER OUT	Used for connecting optional rear speakers.
12 SUBWOOFER OUT	Used for connecting an optional powered subwoofer.
13 AUDIO OUT (VAR/FIX) L(MONO)-AUDIO-R	Connect to the left and right audio inputs of your audio or video component.

Basic Connections

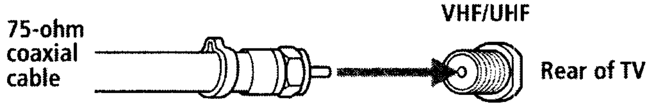
This section describes how to connect a VHF/UHF antenna, CATV cable, and CATV cable box.

Connecting a VHF/UHF Antenna

The connection you choose depends on the type of VHF/UHF antenna you have in your home.

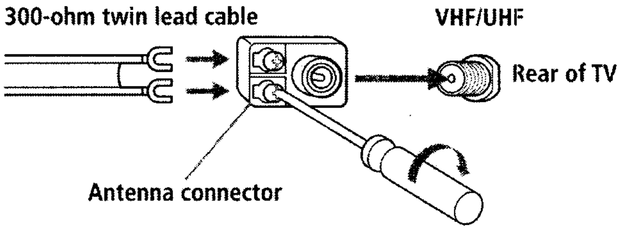
Newer homes are usually equipped with 75-ohm coaxial cable (A):

A VHF Only or VHF/UHF


75-ohm
coaxial
cable
VHF/UHF
Rear of TV

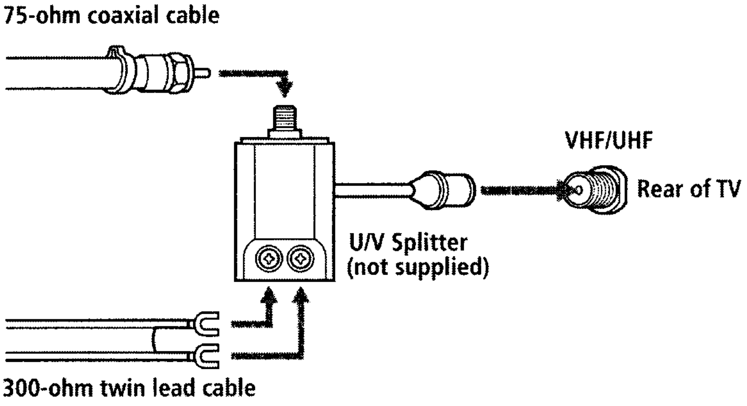
Older homes may have 300-ohm twin lead cable (B):

B VHF Only or UHF Only or VHF/UHF


300-ohm twin lead cable
VHF/UHF
Rear of TV
Antenna connector

Some homes may have both 75-ohm coaxial and 300-ohm twin lead cables (C):

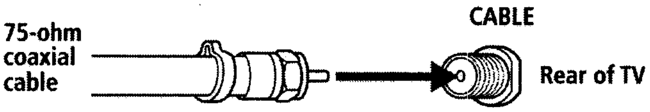
C VHF and UHF


75-ohm coaxial cable
VHF/UHF
Rear of TV
U/V Splitter
(not supplied)
300-ohm twin lead cable

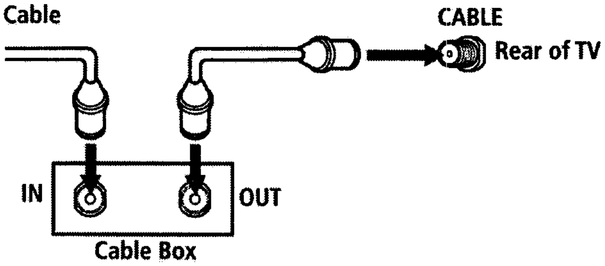
✍ Of the three methods shown, connection A results in the best picture quality.

Connecting a CATV Cable or a CATV Cable Box

CATV Cable


75-ohm coaxial cable
CABLE
Rear of TV

CATV Cable Box

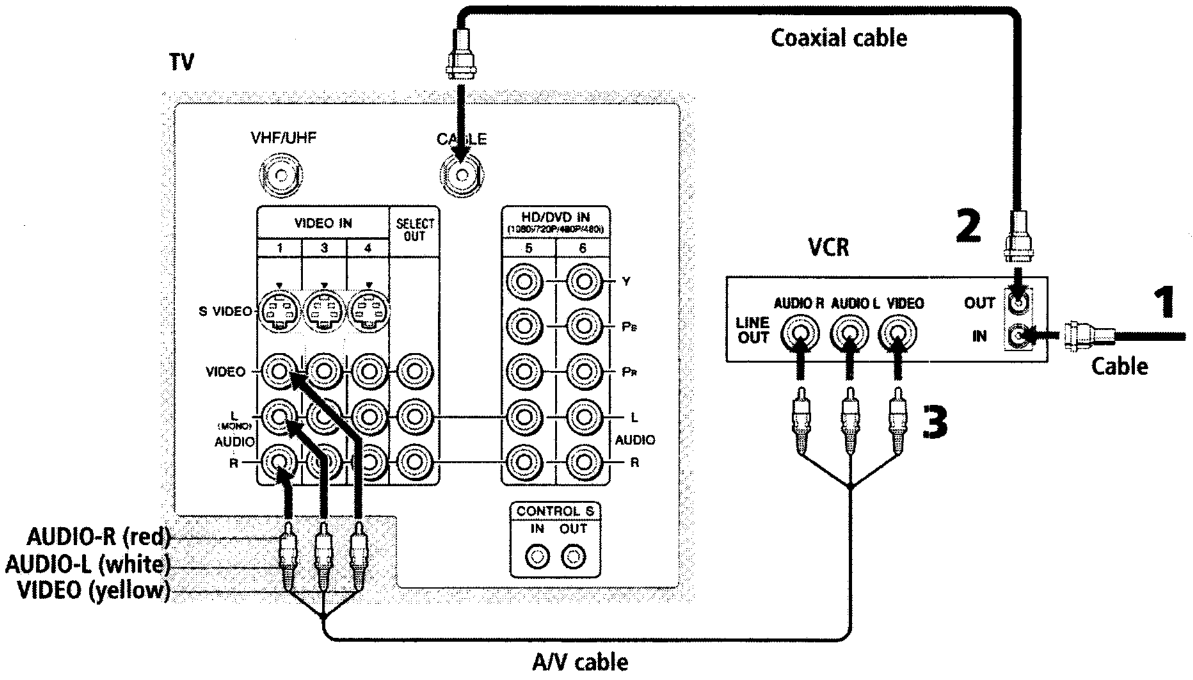

Cable
CABLE
Rear of TV
IN
OUT
Cable Box

Connecting a VCR and Cable

Use this hookup if you have cable TV that does not require a cable box.

1. Connect the cable TV cable to the VCR's IN jack.
2. Using a coaxial cable, connect the VCR's OUT jack to the projection TV's CABLE jack.
3. Using an A/V cable, connect the VCR's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.

✍ If the VCR you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because an S VIDEO cable carries only the video signal, you will also need audio cables for sound.


TV
Coaxial cable
VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
HD/DVD IN (1080i/720P/480P/480i)
5
6
S VIDEO
VIDEO
L (MONO)
AUDIO
R
Y
PB
PR
L
AUDIO
R
CONTROL S
IN OUT
VCR
2
LINE OUT
AUDIO R AUDIO L VIDEO
OUT
IN
1
Cable
3
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)
A/V cable

Connecting a VCR and Cable Box

Use this hookup if

- ☐ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels), so you need to use a cable box
- ☐ You want to use the Twin View or Scrolling Channel Index feature.

With this setup you can

- ☐ Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- ☐ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- ☐ Use the Twin View and Scrolling Channel Index features.
- ☐ Record both regular cable TV and scrambled channels.

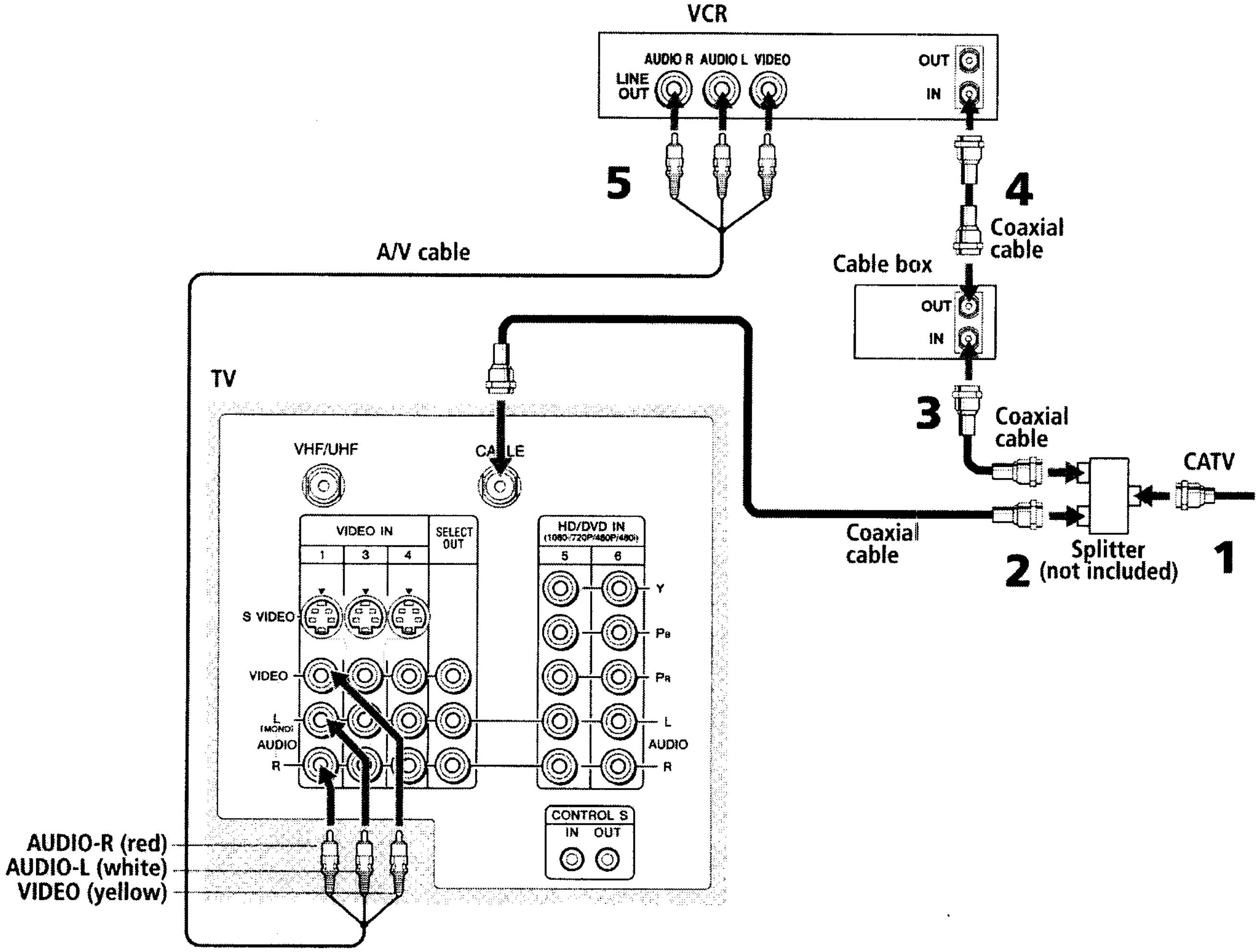
To connect a cable box and a VCR, you will need

- ☐ A small inexpensive device known as a splitter.
- ☐ Three short coaxial cables.
- ☐ Either a combination audio/video cable, or an S VIDEO cable and audio cables.

1. Connect the CATV cable to the single (input) jack of the splitter.
2. Use a coaxial cable to connect one of the two output jacks of the splitter to the projection TV's CABLE jack.
3. Use a coaxial cable to connect the other output jack of the splitter to the input jack of the cable box.
4. Use a coaxial cable to connect the output jack of the cable box to the input jack of the VCR.
5. Use the video line (yellow) of a combination audio/video (A/V) cable to connect the video output jack of the VCR to the video input jack of the projection TV.

   ✍ If your VCR has an S VIDEO jack, you can substitute an S VIDEO cable for the video line of an A/V cable. The S VIDEO cable will provide improved video signal quality.

6. Connect the left (white) and right (red) audio output channels of the VCR to the respective input jacks on the projection TV.


VCR
AUDIO R AUDIO L VIDEO
LINE OUT
OUT
IN
5
4
Coaxial cable
A/V cable
Cable box
OUT
IN
TV
3
Coaxial cable
CATV
VHF/UHF
CABLE
VIDEO IN
1 3 4
SELECT OUT
HD/DVD IN (1080i/720P/480P/480i)
5 6
Coaxial cable
Splitter (not included)
2
1
S VIDEO
VIDEO
L (MONO)
AUDIO
R
Y
PB
PR
L
AUDIO
R
CONTROL S
IN OUT
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)

✍ **IMPORTANT** - To use the Twin View or Scrolling Channel Index feature or to watch premium (scrambled) channels the **VCR MUST BE TURNED ON**; otherwise, you will be unable to view them.

To view scrambled channels:

☐ Press TV/VIDEO on the remote control to select the input to which you connected the VCR. Turn on the VCR, and make sure the VCR input selection is set to RF Input. Then use the cable box to change channels.

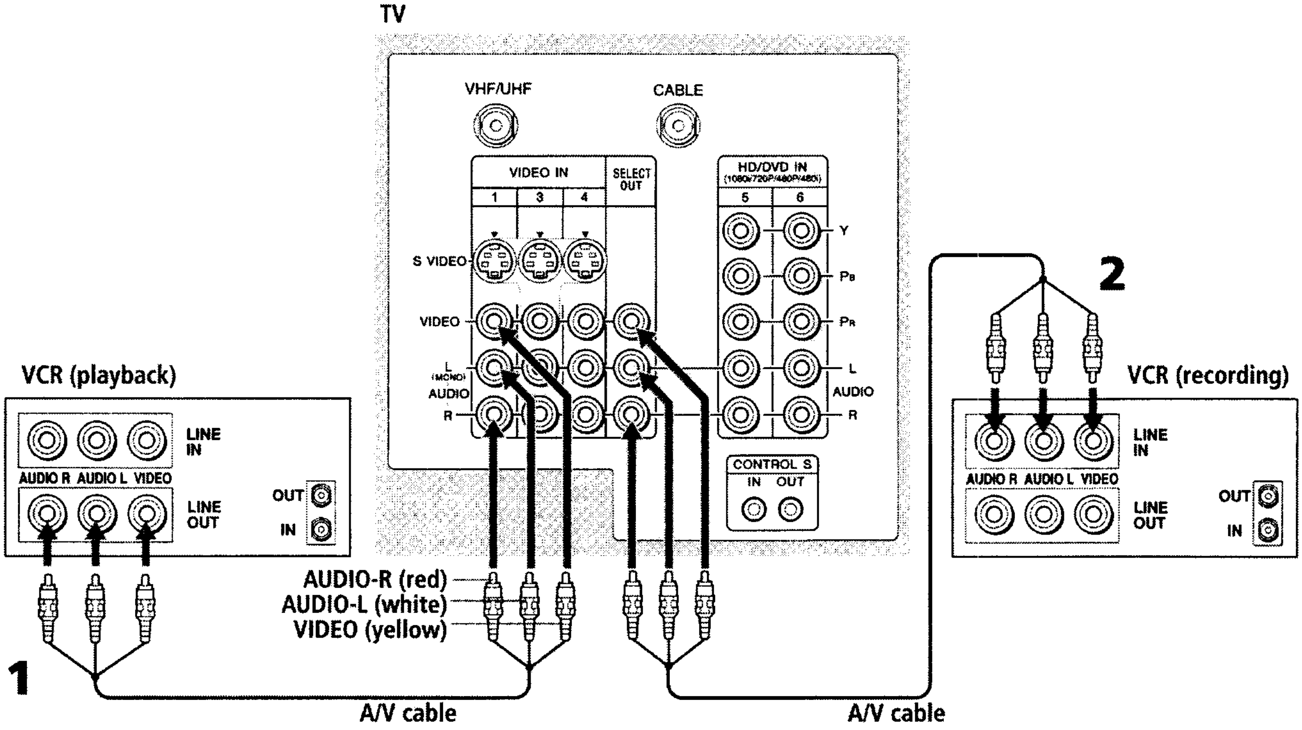
To prevent the accidental switching of channels:

☐ When using a VCR or cable box, you can use the Channel Fix feature to lock in a channel. For details, see page 58.

Connecting Two VCRs for Tape Editing

The SELECT OUT jacks allow you use a second VCR to record a program being played by the primary VCR to edit and dub tapes.

1. Using an A/V cable, connect the playback VCR's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.
2. Using an A/V cable, connect the recording VCR's Audio and Video OUT jacks to the projection TV's SELECT OUT jacks.


TV
VHF/UHF
CABLE
VIDEO IN
SELECT OUT
1
3
4
S VIDEO
VIDEO
L (MONO)
AUDIO
R
HD/DVD IN (1080i/720P/480P/480i)
5
6
Y
PB
PR
L
AUDIO
R
CONTROL S
IN
OUT
2
VCR (playback)
LINE IN
AUDIO R
AUDIO L
VIDEO
LINE OUT
OUT
IN
VCR (recording)
LINE IN
AUDIO R
AUDIO L
VIDEO
LINE OUT
OUT
IN
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)
1
A/V cable
A/V cable

3. If necessary, change the video input on your VCR. (For details, see your VCR's instruction guide.)

To do tape editing

❑ Press TV/VIDEO on the remote control to select the playback VCR.

✍ You can select the output signal from the SELECT OUT jacks in the Setup menu. For details, see page 65.

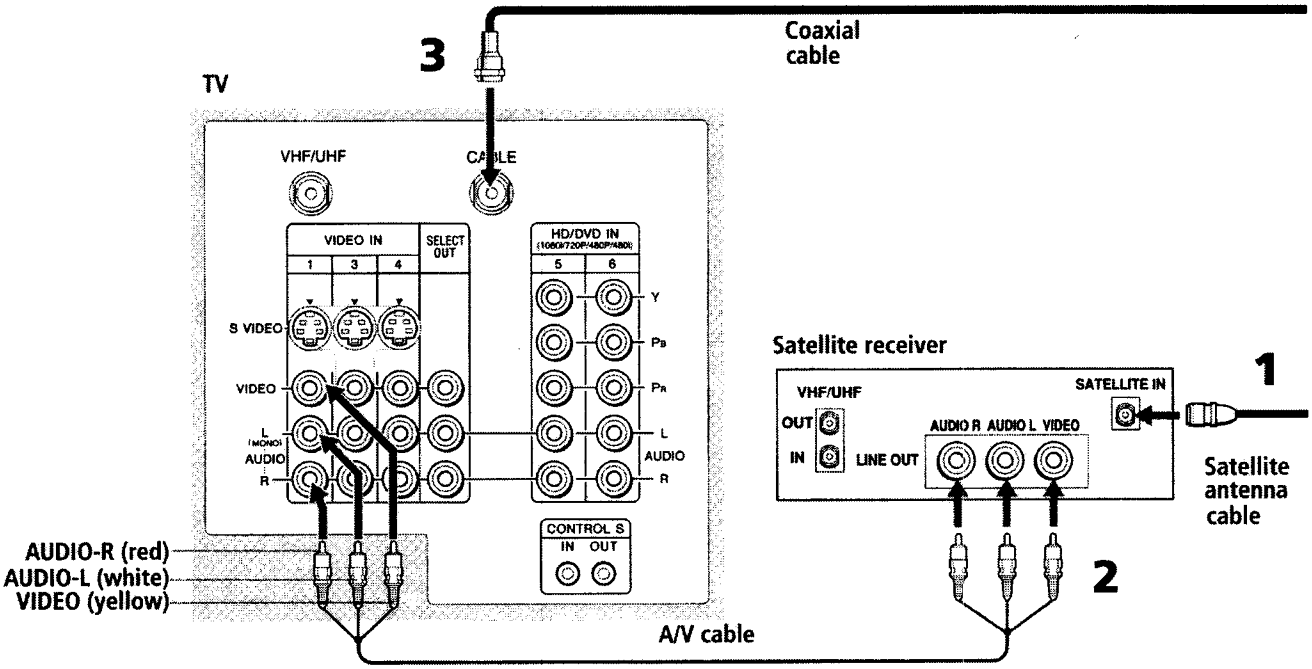
Connecting a Satellite Receiver

1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.

2 Using an A/V cable, connect the satellite receiver's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.

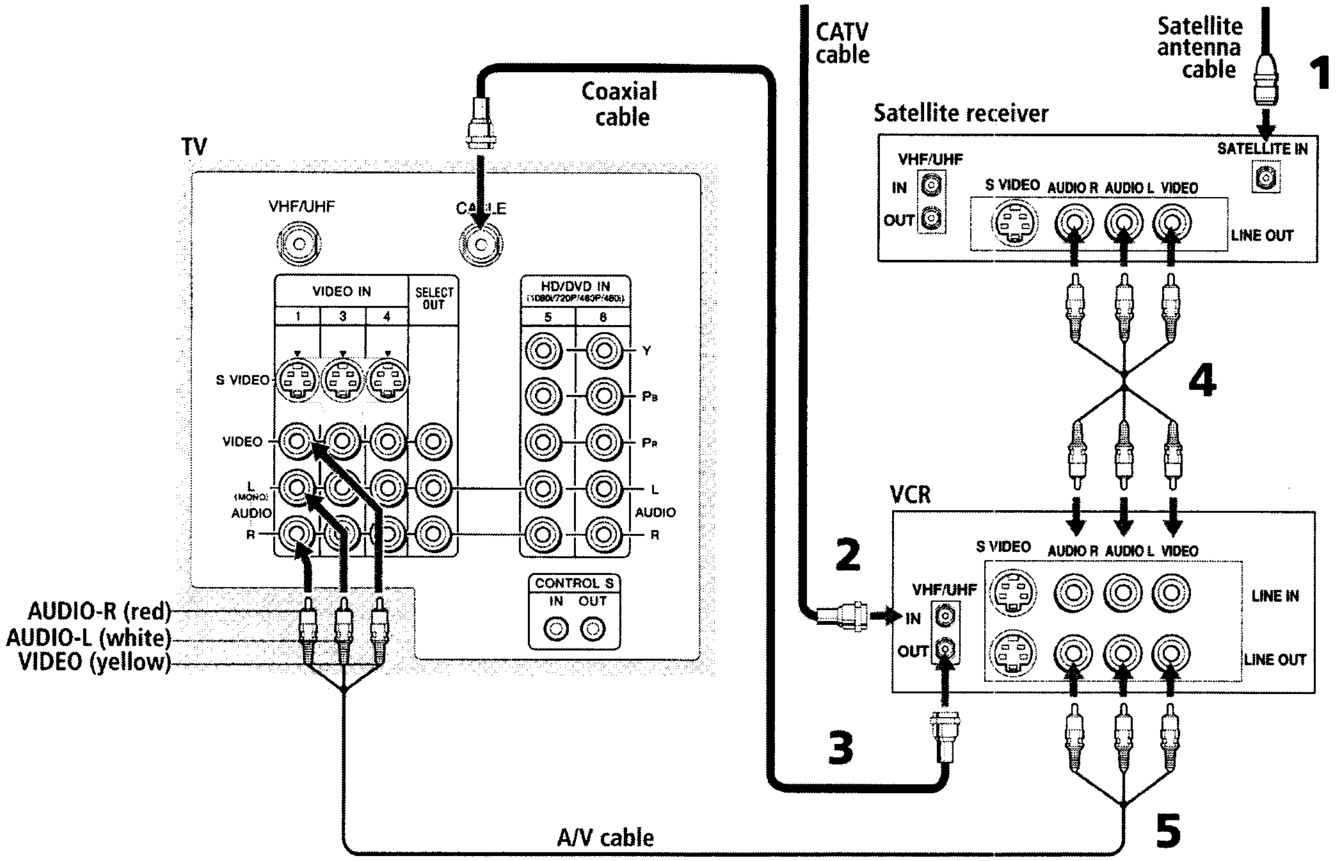
3 Connect a coaxial cable from your cable or antenna to the projection TV's CABLE jack.

✍ If the receiver you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because S VIDEO cables carry only the video signal, you will also need audio cables for sound.


3
Coaxial cable
TV
VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
HD/DVD IN (1080i/720P/480P/480i)
5
6
Y
PB
PR
L
AUDIO
R
S VIDEO
VIDEO
L (MONO)
AUDIO
R
CONTROL S
IN
OUT
Satellite receiver
VHF/UHF
SATELLITE IN
OUT
IN
LINE OUT
AUDIO R
AUDIO L
VIDEO
1
Satellite antenna cable
2
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)
A/V cable

Connecting a Satellite Receiver with a VCR

1. Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
2. Connect the CATV cable to the VCR's VHF/UHF IN jack.
3. Using a coaxial cable, connect the VCR's OUT jack to the projection TV's CABLE jack.
4. Using an A/V cable, connect the satellite receiver's Audio and Video OUT jacks to the VCR's Audio and Video IN jacks.
5. Using an A/V cable, connect the VCR's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.
6. If necessary, change the video input on your VCR. (For details, see your VCR's instruction guide.)


CATV cable
Satellite antenna cable
1
Coaxial cable
Satellite receiver
TV
VHF/UHF
IN
OUT
SATELLITE IN
S VIDEO AUDIO R AUDIO L VIDEO
LINE OUT
VHF/UHF
CABLE
VIDEO IN
SELECT OUT
1 3 4
S VIDEO
VIDEO
L (MONO) AUDIO R
HD/DVD IN (1080i/720P/480P/480i)
5 6
Y
PB
PR
L AUDIO R
4
VCR
2
S VIDEO AUDIO R AUDIO L VIDEO
VHF/UHF
IN
OUT
LINE IN
LINE OUT
CONTROL S
IN OUT
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)
3
A/V cable
5

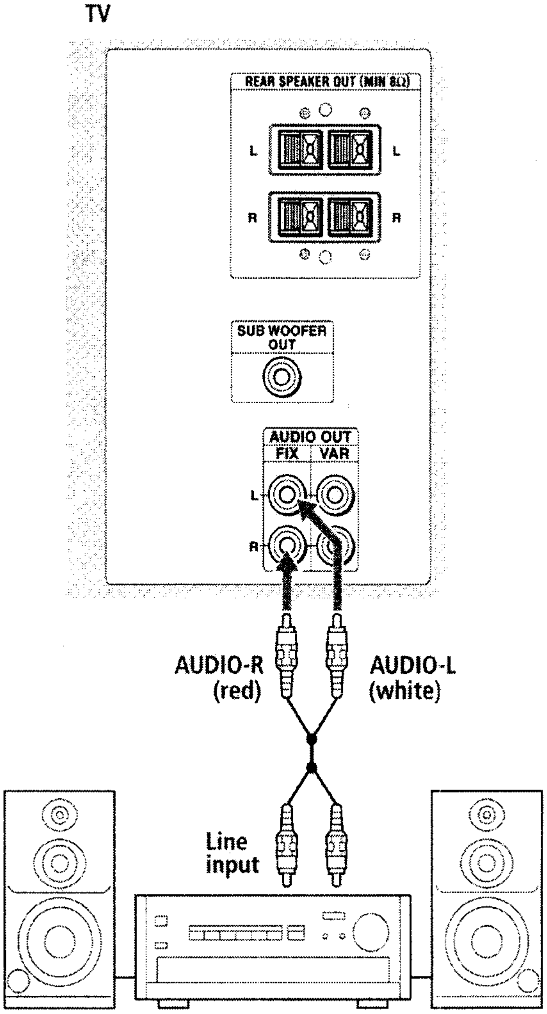
✍ If the peripherals you are connecting have S VIDEO jacks, you can use S VIDEO cables for improved picture quality (compared to combination audio/video cables). Because S VIDEO cables carry only the video signal, you will also need audio cables for sound.

Connecting an Audio Receiver

For better sound quality, you may want to connect your projection TV to your stereo system's audio receiver.

To connect to an audio receiver

❑ Use audio cables to connect the projection TV's Audio OUT jacks to the audio receiver's audio LINE IN jacks.


TV
REAR SPEAKER OUT (MIN 8Ω)
L
L
R
R
SUB WOOFER OUT
AUDIO OUT
FIX
VAR
L
R
AUDIO-R (red)
AUDIO-L (white)
Line input

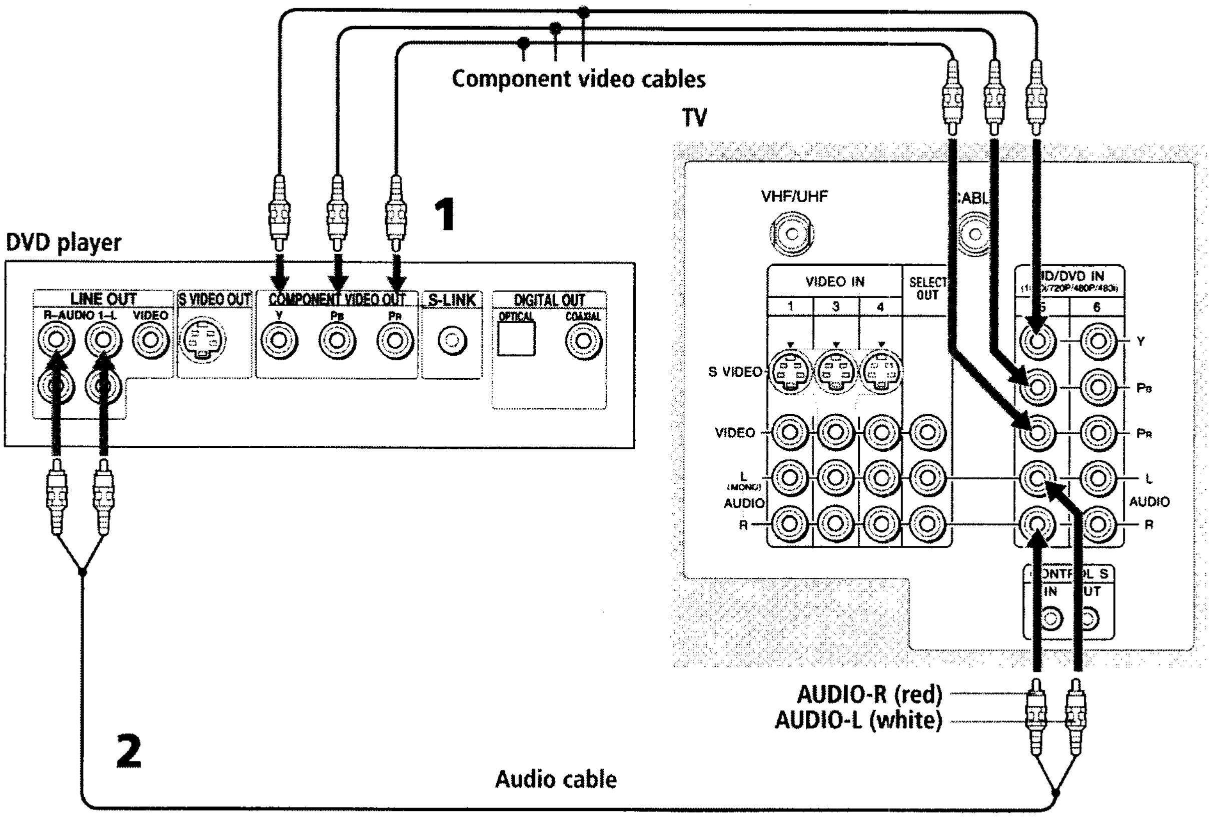
Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if your DVD player has component video out jacks.

1. Using three separate component video cables, connect the DVD player's Y, PB and PR jacks to the Y, PB and PR jacks on the projection TV. Use the HD/DVD IN 5 or 6 connections.

   ✍ The Y, PB and PR jacks on your DVD player are sometimes labeled Y, CB and CR, or Y, B-Y and R-Y. If so, connect the cables to like colors.

2. Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's Audio IN jacks. Be sure to use the same column of inputs that you used for the video connection (HD/DVD IN 5 or 6).


Component video cables
TV
1
DVD player
LINE OUT
R-AUDIO 1-L
VIDEO
S VIDEO OUT
COMPONENT VIDEO OUT
Y
PB
PR
S-LINK
DIGITAL OUT
OPTICAL
COAXIAL
VHF/UHF
CABL
VIDEO IN
1
3
4
SELECT OUT
HD/DVD IN
5
6
S VIDEO
VIDEO
L (MONO)
AUDIO
R
Y
PB
PR
L
AUDIO
R
CONTROL S
IN
OUT
AUDIO-R (red)
AUDIO-L (white)
2
Audio cable

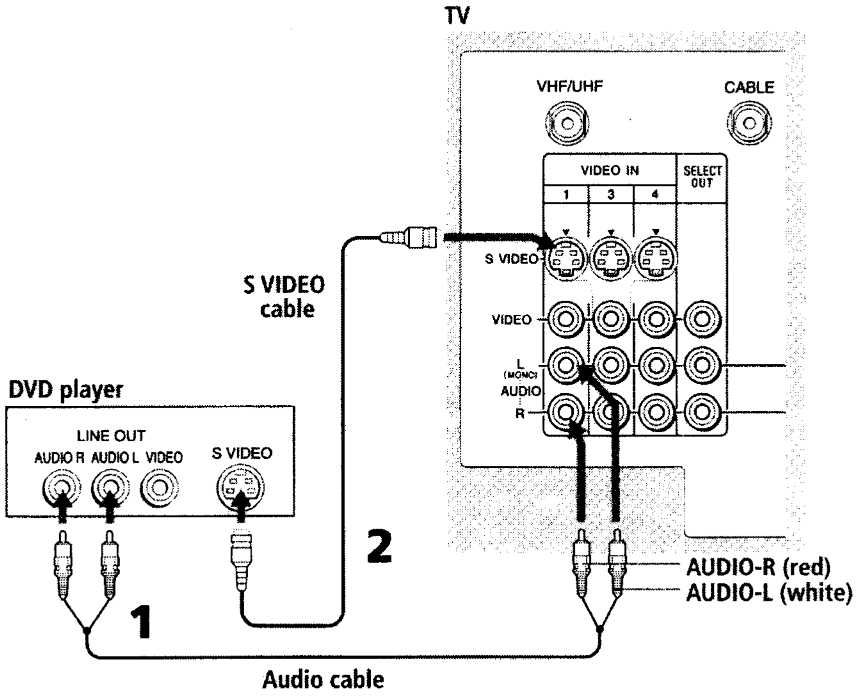
✍ You cannot record the signal from any equipment connected into the Y, PB, PR jacks.

Connecting a DVD Player with A/V Connectors

Use this hookup if your DVD player does not have component video out jacks (as shown on page 26).

✍ An S VIDEO connection will give a good-quality video signal, but if your DVD player has component video, that connection (described on page 26) will give an even better signal.

1. Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's Audio IN jacks.
2. Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.


TV
VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
S VIDEO
VIDEO
L (MONO)
AUDIO
R
S VIDEO cable
DVD player
LINE OUT
AUDIO R
AUDIO L
VIDEO
S VIDEO
2
1
AUDIO-R (red)
AUDIO-L (white)
Audio cable

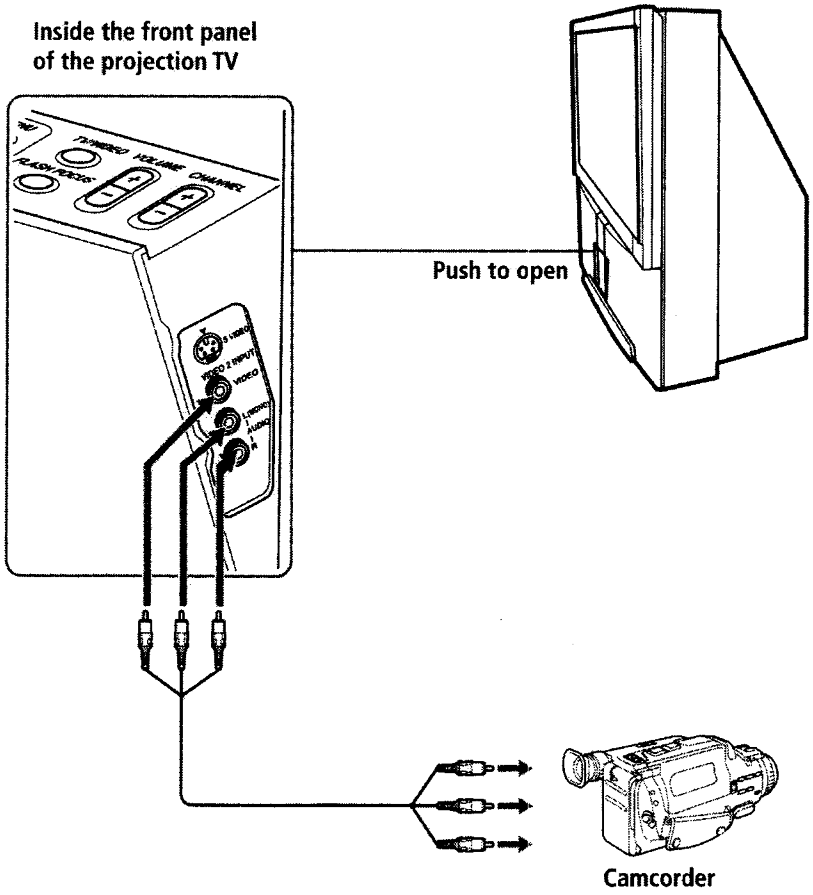
To switch between your projection TV, VCR and DVD

☐ Press TV/VIDEO to switch from one input device to another.

Connecting a Camcorder

For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). If you prefer, you can connect the camcorder to the projection TV's rear Audio and Video IN jacks.

☐ Using A/V cables, connect the camcorder's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.



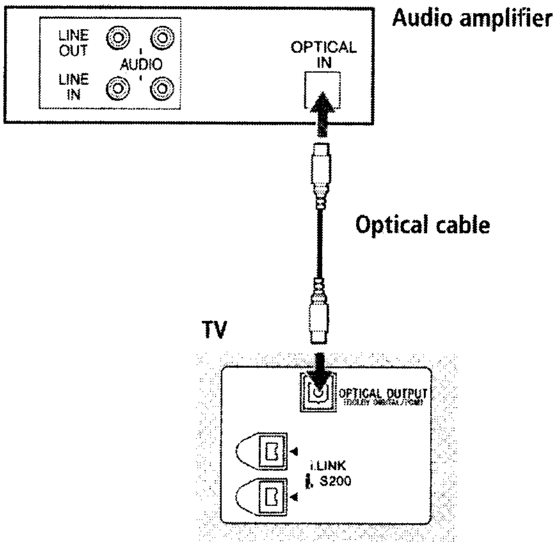
If you have a mono camcorder, connect its audio output to the projection TV's AUDIO L jack.

✍ If the camcorder you are connecting has an S VIDEO jack, you can use an S VIDEO cable for improved picture quality (compared to a combination audio/video cable). Because S VIDEO cables carry only the video signal, you will also need audio cables for sound.

Connecting a Device with an Optical IN Connector

You can use the projection TV's DIGITAL AUDIO OPTICAL OUTPUT jack to connect an audio device that is Dolby Digital and PCM compatible, such as an audio amplifier.

❑ Using an optical cable, connect the device's DIGITAL AUDIO IN jack to the projection TV's DIGITAL AUDIO OPTICAL OUTPUT jack.


Audio amplifier
LINE OUT
AUDIO
LINE IN
OPTICAL IN
Optical cable
TV
OPTICAL OUTPUT
i.LINK S200

✍ The optical output works only for DTV programming, so you might also want to connect the projection TV's analog audio out connectors to the amplifier's analog audio in connectors, as described on page 25.

Connecting i.LINK Compatible Devices

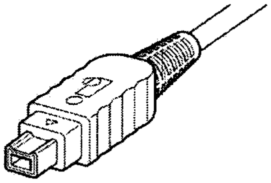
This projection TV is equipped with i.LINK, which provides a secure digital interface to other digital home entertainment devices, including digital cable set-top boxes. i.LINK allows for the secure transfer of copyright-protected high-definition content between these devices and your digital television.

✍ Upon initial release of this projection TV to the market, the Sony digital cable set-top box (DHG-M55CV) is the only i.LINK device that is verified to be compatible with this projection TV.

For more information about i.LINK, see "About i.LINK" on page 73.

Using i.LINK Cables

This projection TV has two 4-pin S200 i.LINK terminals. You can use any of the following i.LINK cables with the projection TV:



4-pin i.LINK cable

Sony Model Number	*Length*
VMC-IL4415	1.5 meters
VMC-IL4435	3.5 meters

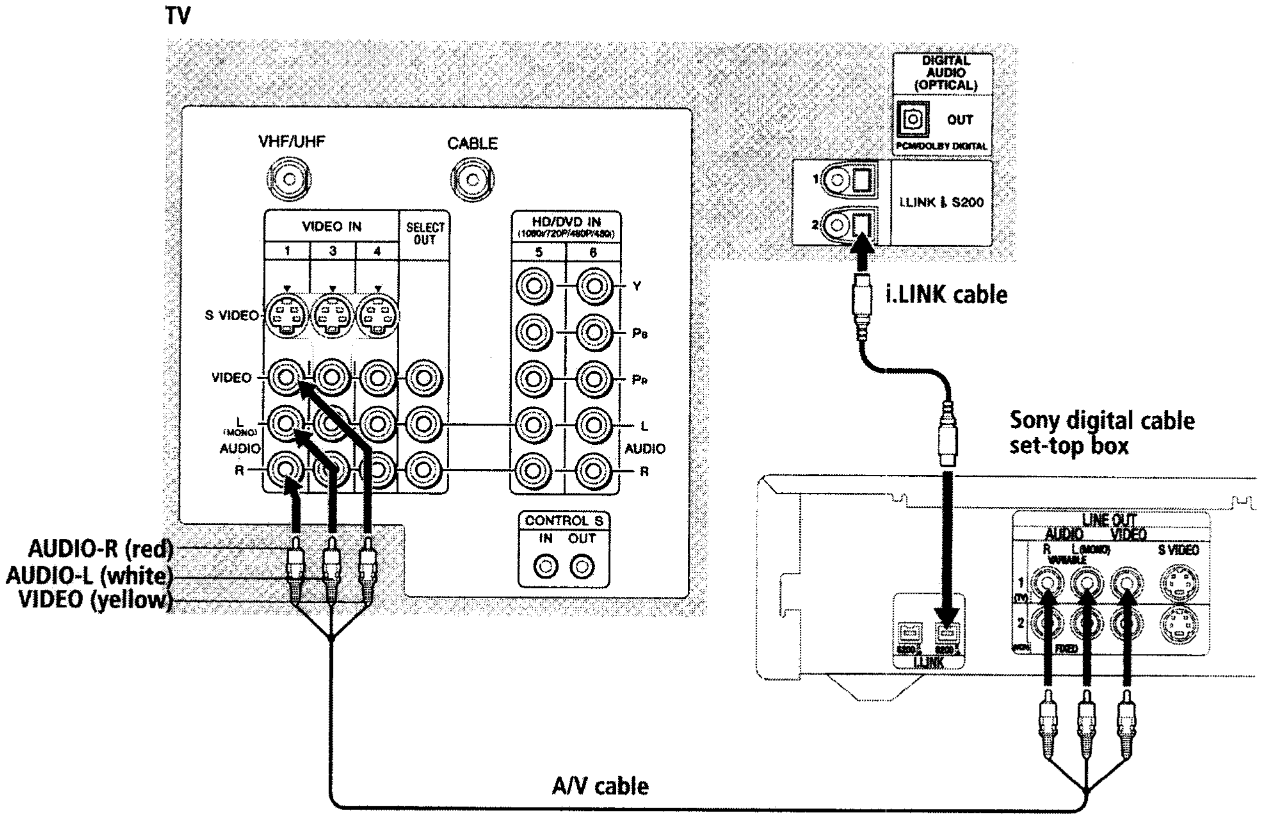
✍ Do not use cables other than the types listed above.

Connecting Cables

✍ Before connecting this unit to i.LINK-compatible equipment, see the instruction manual of the i.LINK device to be connected.

1 Using an A/V cable, connect the i.LINK device's Audio and Video OUT jacks to the projection TV's Audio and Video IN jacks.

2 Using an i.LINK cable (see page 30), connect the device's i.LINK jack to either of the projection TV's i.LINK jacks.

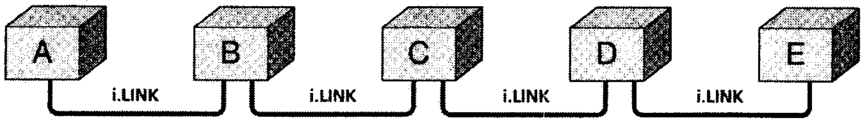

TV
VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
S VIDEO
VIDEO
L (MONO)
AUDIO
R
HD/DVD IN (1080i/720P/480P/480i)
5
6
Y
PB
PR
L
AUDIO
R
CONTROL S
IN
OUT
DIGITAL AUDIO (OPTICAL)
OUT
PCM/DOLBY DIGITAL
1
2
i.LINK S200
i.LINK cable
Sony digital cable set-top box
LINE OUT
AUDIO
VIDEO
R
L (MONO)
VARIABLE
S VIDEO
FIXED
i.LINK
AUDIO-R (red)
AUDIO-L (white)
VIDEO (yellow)
A/V cable

✍ i.LINK devices can be "hotplugged" (connected and disconnected while they are still powered on). The projection TV automatically recognizes the device and displays the screen shown on page 33.

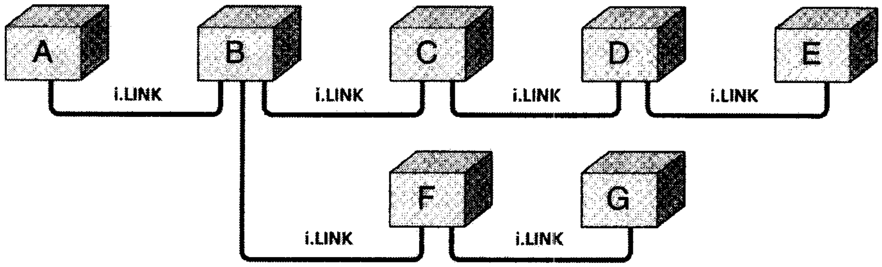
Notes on Connecting i.LINK Devices

As additional compatible i.LINK devices are introduced in the future, observe the following when connecting devices to the projection TV.

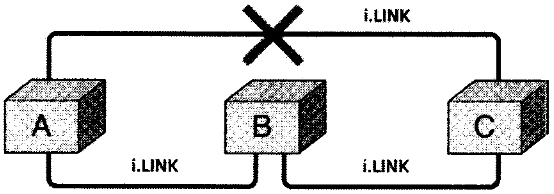
☐ To connect two or more i.LINK-capable devices, use i.LINK cables to connect them as shown below.


A
B
C
D
E
i.LINK
i.LINK
i.LINK
i.LINK

☐ You can connect up to 63 i.LINK devices. However, the maximum number of cables in any serial route is 16.


A
B
C
D
E
i.LINK
i.LINK
i.LINK
i.LINK
F
G
i.LINK
i.LINK

☐ Do not connect i.LINK devices in a way that creates a loop.

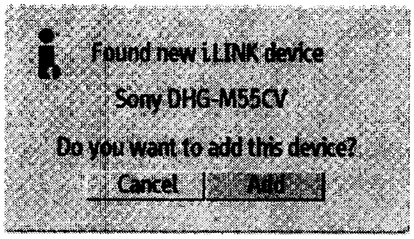

i.LINK
A
B
C
i.LINK
i.LINK

☐ Connecting non-compatible devices, such as camcorders, PCs, or PC peripherals, may result in malfunctions.

Completing i.LINK Setup

Before you can use an i.LINK device with the projection TV, you need to register the device as follows.

1. After you've connected the cables (as described on page 31), first turn on the projection TV, and then turn on the i.LINK device(s). The following screen automatically appears.



Found new i.LINK device

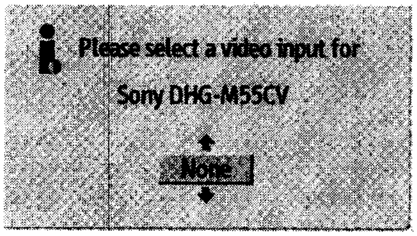
Sony DHG-M55CV

Do you want to add this device?

To add the i.LINK device, highlight Add and press ⊕.

> If you select Cancel, the i.LINK device is set up as "hidden" and it does not appear in the i.LINK Control Panel. To see the device in the i.LINK Control Panel, change the i.LINK Setup option from Hide to Show in the Setup menu (see page 65).

2. If you selected Add in step 1, and the device requires an analog video connection (see the device's instruction manual), the following screen appears.



Please select a video input for

Sony DHG-M55CV

> Depending on the i.LINK device you are setting up, this screen may not be displayed. In this case, the device's video input will be displayed as N/A.

3. Move the joystick ↑ and ↓ to highlight the video input (VIDEO 1-4) that connects the i.LINK device to the projection TV. If you don't need an analog video connection, select None. Then press ⊕

A confirmation screen appears, which indicates the i.LINK device name and video input. The device is now available in the i.LINK Control Panel (see page 48).

For more information

☐ To change the setup of the i.LINK device, use the Setup menu. For details, see page 65.

☐ For information on using the i.LINK Control Panel, see page 48.

☐ For general information about i.LINK, see page 73.

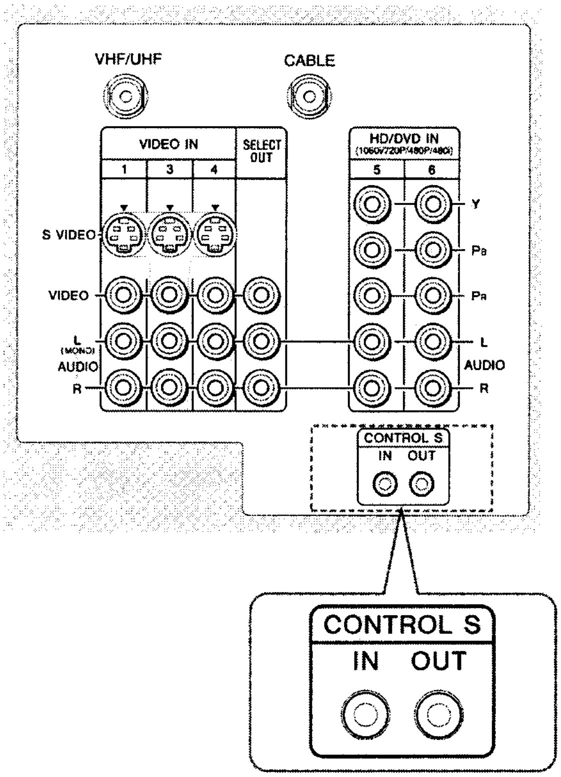
Using the CONTROL S Feature

CONTROL S allows you to control your system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.

Use CONTROL S IN to send signals to the projection TV.

Use CONTROL S OUT to send signals to connected equipment.

TV


VHF/UHF
CABLE
VIDEO IN
1
3
4
SELECT OUT
HD/DVD IN (1080i/720P/480P/480i)
5
6
S VIDEO
VIDEO
L (MONO)
AUDIO
R
Y
PB
PR
L
AUDIO
R
CONTROL S
IN
OUT
CONTROL S
IN
OUT

Self Diagnosis Supported model

SERVICE MANUAL RA-5A CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KDP-57XBR2	RM-Y185	US	SCC-P69B-A
KDP-57XBR2	RM-Y185	Canadian	SCC-P69B-A
KDP-65XBR2	RM-Y185	US	SCC-P69A-A
KDP-65XBR2	RM-Y185	Canadian	SCC-P69A-A

SUPPLEMENT - 1

SUBJECT: ADJUSTMENT MANUAL ADDED

Correct the service manual as shown.
File this Correction with the service manual.

DIGITAL HIGH DEFINITION PROJECTION TV

SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

9-965-432-81

English
2001JK74WEB-1
Printed in USA
© 2001.11

KDP-57XBR2 KDP-65XBR2 Adjustment Manual

Table of Contents

Introduction

1- Set-up Adjustments
- 1-1 Screen Voltage Adjustment
- 1-2 Deflection Yoke Tilt Adjustment
- 1-3 Focus Lens Adjustment
- 1-4 Focus Control Adjustment
- 1-5 2-pole Magnet and Centering Magnet Adjustment
- 1-6 4-pole Magnet Adjustment
- 1-7 Defocus Adjustment (Blue CRT Only)

2- Picture Adjustments
- 2-1 480p Y, Pb, Pr Gain Adjustment
- 2-2 Main Y/C Level Adjustment (for DRC Signal Path)
- 2-3 Main Y/C Level Adjustment (for VDO Signal Path)
- 2-4 Sub Y/C Level Adjustment (for DRC Signal Path)
- 2-5 Sub Y/C Level Adjustment (for VDO Signal Path)
- 2-6 Main-decoder Sub-contrast Adjustment (for Composite and Y/C Inputs)
- 2-7 Main-decoder Sub-color and Sub-hue Adjustment (for Composite and Y/C Inputs)
- 2-8 Sub-decoder Sub-contrast Adjustment (for Y/C Inputs)
- 2-9 Sub-decoder Sub-color and Sub-hue Adjustment (for Y/C Inputs)
- 2-10 Sub-decoder Sub-contrast Adjustment (for Composite Input)
- 2-11 Sub-decoder Sub-color and Sub-hue Adjustment (for Composite Input)
- 2-12 Main-decoder Pb and Pr Offset Adjustment
- 2-13 Sub-decoder Pb and Pr Offset Adjustment
- 2-14 Blue Offset Adjustment
- 2-15 Sub-contrast Adjustment
- 2-16 Sub-color and Sub-hue Adjustment
- 2-17 RF Sub-contrast Adjustment
- 2-18 RF Sub-color and Sub-hue Adjustment
- 2-19 Sub-brightness Adjustment
- 2-20 Neutral White Balance Adjustment
- 2-21 Cool White Balance Adjustment
- 2-22 Warm White Balance Adjustment
- 2-23 Using the Internally Generated Patterns

3- Registration and Geometry Adjustments
- 3-1 Setup for Adjustment
- 3-2 Main Deflection Adjustment
- 3-3 PJE Mode Sub-deflection Adjustment
  - 3-3-1 Function keys on the Remote Commander
  - 3-3-2 Performing the PJE Mode Coarse Adjustment
  - 3-3-3 Performing the PJE Mode Fine Adjustment
  - 3-3-4 Projector Engine (“PJE”) Adjustment (Sub-deflection Adjustment)
  - 3-3-5 PJE NTSC FULL mode Adjustment
  - 3-3-6 Auto-registration (“Auto-Focus”) Offset Data Calculation

4- Auto-registration Error Code List

ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using remote commander (RM-Y185), all circuit adjustments can be made.

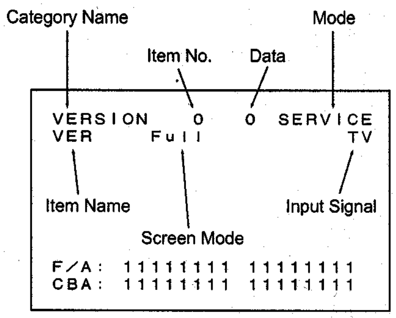
NOTE : Test Equipment Required.

NTSC Pattern generator.
HDTV Pattern generator with component outputs, capable of outputting *both* 1080i and 480p component signals (Y, Pb,Pr). In lieu of 480p capability, a DVD player with progressive scan output and a test DVD (such the AVIA "Guide to Home Theater" DVD made by Ovation Software®) may be used.
Oscilloscope.

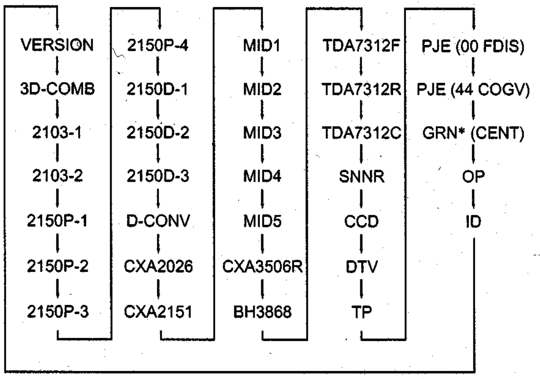
1. SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. DISPLAY → 5 → VOL (+) → TV POWER on the remote commander. (Press each button within a second.)

SERVICE MODE ADJUSTMENT


Category Name
Mode
Item No.
Data
VERSION 0 0 SERVICE
VER Full TV
Item Name
Input Signal
Screen Mode
F/A : 11111111 11111111
CBA : 11111111 11111111

3. The SCREEN displays the item being adjusted.
4. Press "①" or "④" on the remote commander to select the adjustment item.
5. Press "③" or "⑥" on the remote commander to change the data.
6. Press "②" or "⑤" on the remote commander to select the category. Every time you press "②" (Category up), Service mode changes in the order as shown below.


VERSION
3D-COMB
2103-1
2103-2
2150P-1
2150P-2
2150P-3
2150P-4
2150D-1
2150D-2
2150D-3
D-CONV
CXA2026
CXA2151
MID1
MID2
MID3
MID4
MID5
CXA3506R
BH3868
TDA7312F
TDA7312R
TDA7312C
SNNR
CCD
DTV
TP
PJE (00 FDIS)
PJE (44 COGV)
GRN* (CENT)
OP
ID

* : GRN , RED or BLU

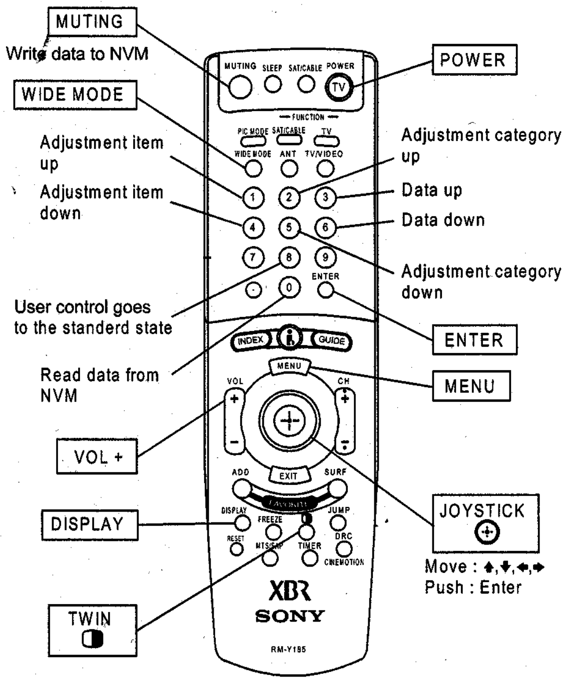
7. If you want to recover the latest values press "⓪" then "ENTER" to read the memory.
8. Press "MUTING" then "ENTER" to write into memory.
9. Turn power off.

Note: Press "⑧" then "ENTER" on the remote commander to initialize or turn set off and on to exit.

2. Memory Write Confirmation Method

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to service mode.
3. Call the adjusted items again and confirm they were adjusted.

3. Adjusting Buttons and Indicator


MUTING
Write data to NVM
WIDE MODE
Adjustment item up
Adjustment item down
User control goes to the standerd state
Read data from NVM
VOL +
DISPLAY
TWIN
POWER
Adjustment category up
Data up
Data down
Adjustment category down
ENTER
MENU
JOYSTICK
Move : ↑,↓,←,→
Push : Enter
XBR
SONY
RM-Y185

RM-Y185

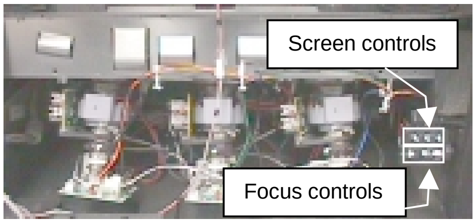
Note: When the PJE mode is activated, which displays an internally generated pattern, several buttons on the remote commander will have different functions than listed above. Therefore, when in the PJE mode, refer to section 3-3 for the button functions.

Ovation Software is a registered trademark of Ovation Software, Inc.

1- SET UP ADJUSTMENTS

1-1 SCREEN VOLTAGE ADJUSTMENT

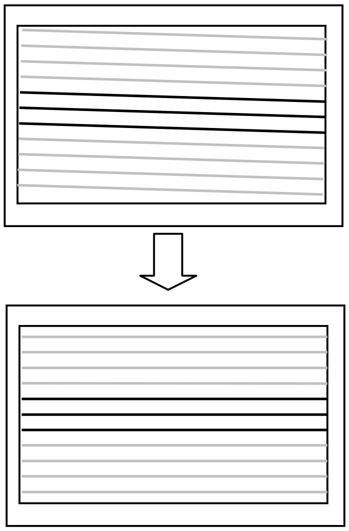
1. Select a video input with no signal applied (the screen must be black, and the room must be as dark as possible. You may use a clean, heavy blanket over the screen to block out ambient light. Be careful to ensure that the blanket does not mar or scratch the screen).
2. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults. Turn the green SCREEN control on the focus block all the way **counter-clockwise** and then gradually turn it **clockwise** until the retrace line is barely visible.



3. Gradually turn the control **counter-clockwise** until the retrace line just disappears.
4. Repeat steps 1 through 3 for the red and blue CRTs.
5. Lock the screen controls with locking paint.

1-2 DEFLECTION YOKE TILT ADJUSTMENT

1. Display a cross-hatch pattern (any input, display mode, and picture mode are OK).
2. Enter the service mode.
3. Cover the red and blue CRT lenses with lens caps to allow only green to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
4. Loosen the green CRT's deflection yoke set screw and align the tilt of the deflection yoke so that the horizontal lines at the center of the cross-hatch pattern are parallel to the top and bottom edges of the screen.



5. After aligning the deflection yoke fasten it securely, making sure it is fully forward on the neck of the CRT.
6. The tilt of the deflection yoke for red and blue are aligned the same way as the green CRT.

   Cover the green and blue CRT lenses with lens caps (or use the method shown in the note below for turning off the CRTs individually without using lens caps), then repeat steps 4 and 5 for the red CRT.

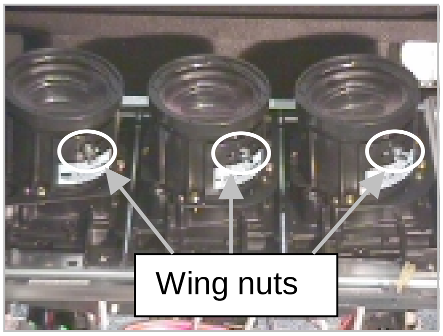
   Cover the green and red CRT lenses with lens caps (or use the method shown in the note below for turning off the CRTs individually without using lens caps), then repeat steps 4 and 5 for the blue CRT.

Note: If lens caps are unavailable, you can cut off the unnecessary colors in the service mode by individually changing the data in adjustment category "2150P-2" , item # 1"RGBS". To display blue only, change the data to "1", to display green only, change the data to "2", to display red only, change the data to "4". All colors are displayed when the data is set to "7".

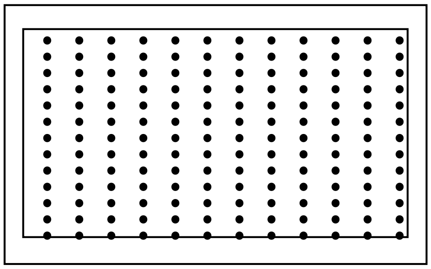
1-3 FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander while in service mode. For details on the usage of the service mode and the remote commander, please refer to the service manual.

1. Loosen each lens' wing nut.



2. Enter the service mode.
3. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults.
4. Display a dot pattern.



5. Cover the red and blue CRT lenses with lens caps to allow only green to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
6. Rotate the green lens assembly to adjust to the optimum focus point in the center area of the screen with the test signal being displayed
7. Tighten the lens wing nut.
8. Cover the green and blue CRT lenses with the lens caps to allow only red to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps). Make sure the dot pattern is still being displayed.

   Adjust the red CRT lens the same way as the green CRT lens.

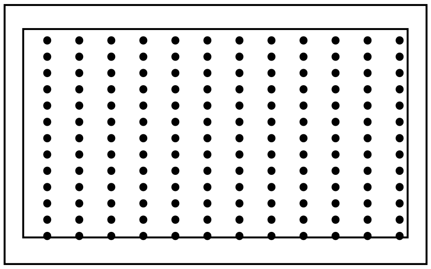
   Cover the green and red CRT lenses with the lens caps to allow only blue to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps). Make sure the dot pattern is still being displayed.

   Adjust the blue CRT lens the same way as the green and red CRT lenses.
9. After adjusting items 1-4 "Focus Control Adjustment" and 1-6 "4-Pole Magnet Adjustment", reconfirm the lens optimum focus point and adjust again if necessary.

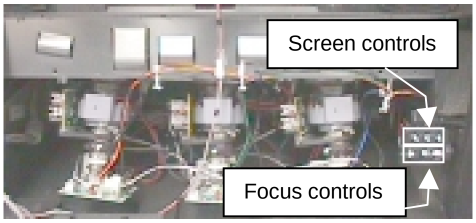
Note: If lens caps are unavailable, you can cut off the unnecessary colors in the service mode by individually changing the data in adjustment category "2150P-2" , item # 1"RGBS". To display blue only, change the data to "1", to display green only, change the data to "2", to display red only, change the data to "4". All colors are displayed when the data is set to "7".

1-4 FOCUS CONTROL ADJUSTMENT

1. Enter the service mode.
2. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults.
3. Display a dot pattern.



4. Cover the red and blue CRT lenses with lens caps to allow only green to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
5. Adjust the green focus control on the focus block to achieve the best overall focus with the dot pattern being displayed.

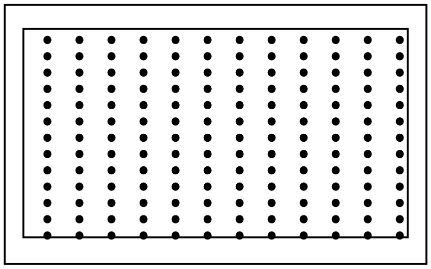


6. Cover the green and blue picture lenses with lens caps to allow only red to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
7. Adjust the red focus control on the focus block to achieve the optimum focus point with the dot pattern being displayed.
8. Cover the green and red picture lenses with lens caps to allow only blue to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
9. Adjust the blue focus control on the focus block to achieve the optimum focus point with the dot pattern being displayed.
10. Repeat steps 1 through 9 after adjusting items 1-3. "Focus Lens Adjustment", 1-5 "2-pole Magnet Adjustment", 1-6 " 4-Pole Magnet Adjustment"

Note: If lens caps are unavailable, you can cut off the unnecessary colors in the service mode by individually changing the data in adjustment category "2150P-2" , item # 1"RGBS". To display blue only, change the data to "1", to display green only, change the data to "2", to display red only, change the data to "4". All colors are displayed when the data is set to "7".

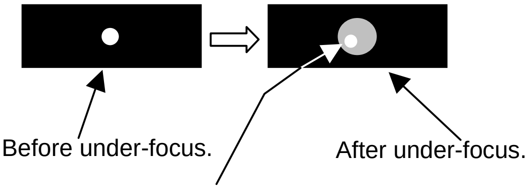
1-5 2-POLE MAGNET AND CENTERING MAGNET ADJUSTMENT

1. Enter the service mode.
2. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults**.** Then set the picture to maximum, brightness to 50%, VM (velocity modulation) off.
3. Display a dot pattern.



4. Cover the red and blue CRT lenses with lens caps to allow only green to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
5. Turn the green focus control on the focus block all the way **counter-clockwise** and set it to underfocus to enlarge the spot (the dot).

Dot in center of the screen.



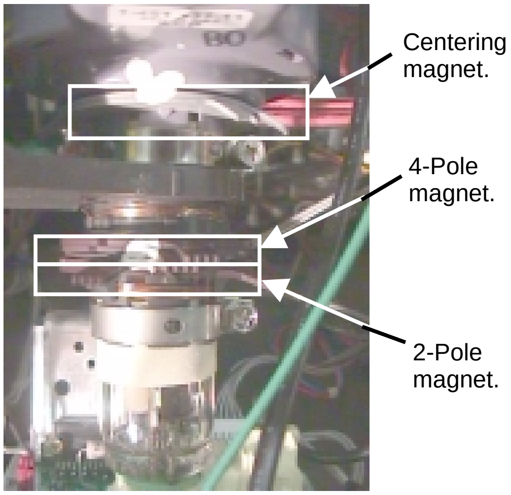
Before under-focus.

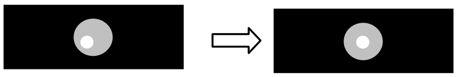
After under-focus.

Note the small bright spot within the under-focused dot.

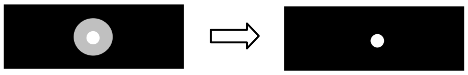
6. Adjust the green CRT's 2-pole magnet so that the small bright spot is in the center of the large defocused spot.

CRT Assembly

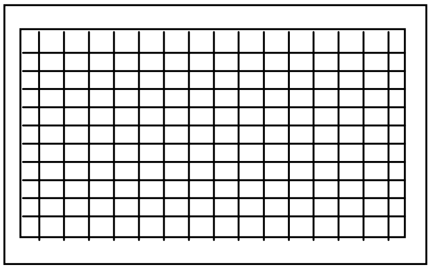




7. Adjust the green focus control on the focus block and set it for the best focus.



8. Change the pattern from dots to cross-hatch.

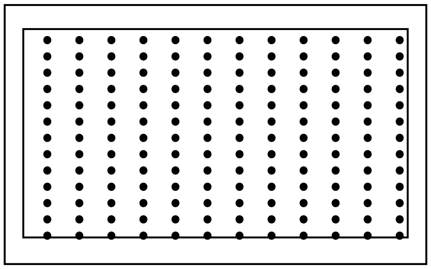


9. If necessary, adjust the green CRT centering magnet to center the pattern horizontally and vertically. This is just a rough adjustment. Fine adjustment will be made later using the service mode.
10. Reconfirm the 2-pole magnet adjustment after moving the centering magnet.
11. Repeat steps 4 through 10 for the red CRT, except now you will cover the green and blue CRT lenses with lens caps to allow only red to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps) and you will adjust the red focus control on the focus block.
12. Repeat steps 4 through 10 for the blue CRT, except now you will cover the green and red CRT lenses with lens caps to allow only blue to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps) and you will adjust the blue focus control on the focus block.
13. Lock the focus controls with locking paint (if no other mechanical adjustments are being made).

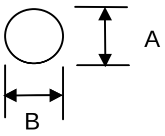
Note: If lens caps are unavailable, you can cut off the unnecessary colors in the service mode by individually changing the data in adjustment category "2150P-2" , item # 1"RGBS". To display blue only, change the data to "1", to display green only, change the data to "2", to display red only, change the data to "4". All colors are displayed when the data is set to "7".

1-6 4-POLE MAGNET ADJUSTMENT

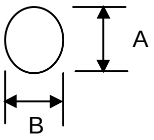
1. Enter the service mode.
2. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults**.** Then set the picture to maximum, VM (velocity modulation) off.
3. Display a dot pattern.



4. Cover the red and blue CRT lenses with lens caps to allow only green to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps).
5. Turn the green focus control on the focus block **clockwise** to enlarge the dot.
6. Adjust the 4-pole magnet so that the enlarged spot in the center of the screen becomes a perfect circle.
7. Adjust the green focus control on the focus block and set it for the best focus.
8. Repeat steps 4 through 7 for the red CRT, except now you will cover the green and blue CRT lenses with lens caps to allow only red to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps) and you will adjust the red focus control on the focus block.
9. Repeat steps 4 through 7 for the blue CRT, except now you will cover the green and red CRT lenses with lens caps to allow only blue to show (or use the method shown in the note below for turning off the CRTs individually without using lens caps) and you will adjust the blue focus control on the focus block. **However**, for the blue CRT ***do not*** make the enlarged spot a perfect circle as indicated in step # 6; instead, adjust the 4-pole magnet so that the height of the enlarged blue spot in the center of the screen is approx. 1.2 times the width of the spot.



Red and green dots: A = B



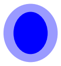
Blue dot: A = 1.2 B

10. Lock the focus controls with locking paint (if no other mechanical adjustments are being made).

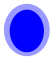
    Note: If lens caps are unavailable, you can cut off the unnecessary colors in the service mode by individually changing the data in adjustment category "2150P-2" , item # 1"RGBS". To display blue only, change the data to "1", to display green only, change the data to "2", to display red only, change the data to "4". All colors are displayed when the data is set to "7".

1-7 DEFOCUS ADJUSTMENT (BLUE CRT ONLY)

1. Select display mode to WIDE ZOOM and picture mode PRO, and while in the adjustment menu press RESET on the remote to restore the PRO mode factory defaults.
2. Display a dot pattern.
3. Adjust the blue focus control on the focus block to make the blue dot *slightly* larger than red and green dots. This adjustment provides a more pleasing picture to the customer.
4. Confirm that the flare surrounding the blue dot is minimal. "Flare" is a fuzziness that surrounds an otherwise focused dot. It may even be a different color than the color of the CRT that is producing it. For example, if you cover the red and blue lenses and display a green cross-hatch or dot pattern, the flare surrounding the green lines or dots may be blue due to the prism effect of the green CRT lens.



Excessive flare: no good.



Minimum flare: OK

Lock the focus controls with locking paint (if no other mechanical adjustments are being made).

This completes the setup adjustments.

2- PICTURE ADJUSTMENTS

2-1 480p Y, PB, PR GAIN ADJUSTMENT

1. Display 100 % color bars (480p, 0% setup, component) signal through VIDEO 5 input. (White to Black Level : 700 ± 10 mVp- p)
2. Alternately connect an oscilloscope to CN005 pin A1 (V_ MIDI_ Y) and pin A2 (V_ MIDI_ PB), and pin A3 (V_ MIDI_ PR) on the B board.
3. Enter the service mode and select category “CXA2151”.
4. Adjust item #5 "YGN" , item #3 "CBGN", and item # 4 "CRGN" so that the waveform level is 1.400 ± 0.035 Vp-p.

After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

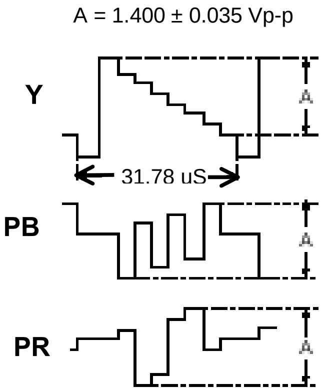


Fig. 2-1

2-2 MAIN Y/C LEVEL ADJUSTMENT (FOR DRC SIGNAL PATH)

1. Display 100 % color bars (480i, 0% setup, component) signal through VIDEO 5 input. (White to Black Level Y : 714 ± 10 mVp- p, PB, PR : 700 ± 10 mVp- p)
2. Alternately connect an oscilloscope to CN005 pin A5 (V_ DRCI_ Y), and pin A6 (V_ DRCI_ PB) on the B board.
3. Enter the service mode and select category “2103- 1”.
4. Adjust item #0 "YLEV” and item #1 "CLEV” so that the waveform levels are

1.400 ± 0.015 Vp p and 1.490 ± 0.015 Vp- p.

5. After adjustment is finished, press the “MUTING” + “ENTER ” buttons on the remote to write the data to memory.

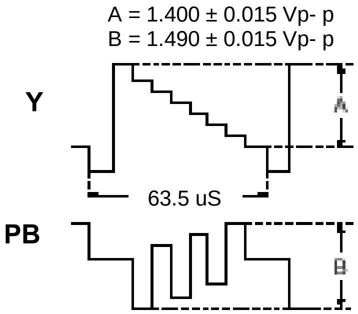
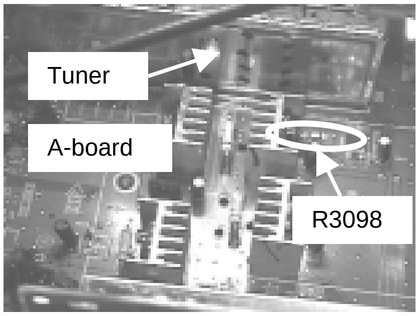


Fig. 2-2

2-3 MAIN Y/C LEVEL ADJUSTMENT (FOR VDO SIGNAL PATH)

1. Display 100 % color bars (480i, 0% setup, component) signal through the VIDEO 5 input. (White to Black Level: Y = 714 ± 10 mVp- p, PB, PR = 700 ± 10 mVp-p).
2. Connect CN005 pin A9 (MN_ SB_ SW) on the B board to 5 Vdc. **Either side of R3098 (1 ohm) on the A-board is a good point to obtain 5 volts.**



3. Alternately connect an oscilloscope to CN005 pin A1 (V_ MIDI_Y) and pin A2 (V_ MIDI_ PB) on the B board.
4. Enter the service mode and select category “2103- 1”.
5. Adjust item #0 "YLEV” and item # 1 "CLEV” so that the waveform are 1.400 ± 0.015 Vp- p.
6. After adjustment is finished, press the “MUTING” + “ENTER" buttons on the remote to write the data to memory.

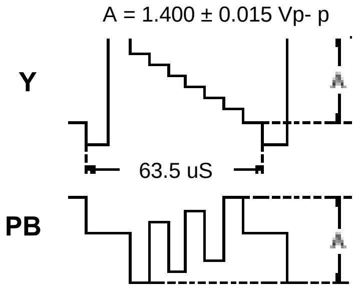


Fig. 2-3

7. **Disconnect CN005 pin 9 from the 5 volt source.**

2-4 SUB Y/C LEVEL ADJUSTMENT (FOR DRC SIGNAL PATH)

1. Select TWIN picture mode, and display 100 % color bars (480i, 0% setup, component) signal through VIDEO 5 input so that the bars appear in both picture windows. (White to Black Level Y : 714 ± 10 mVp- p, PB, PR : 700 ± 10 mVp- p)
2. Alternately connect an oscilloscope to CN005 pin A5 (V_ DRCI_ Y), and pin A6 (V_ DRCI_ PB) on the B board.
3. Enter the service mode and select category “2103- 2”.
4. Adjust item #0 "YLEV” and item #1 "CLEV” so that the waveform levels are 1.400 ± 0.015 Vp p and 1.490 ± 0.015 Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER ” buttons on the remote to write the data to memory.

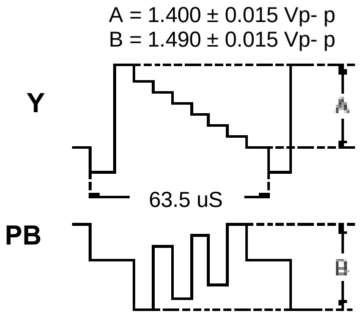


Fig. 2-4

2-5 SUB Y/C LEVEL ADJUSTMENT (FOR VDO SIGNAL PATH)

1. Select TWIN mode and display 100 % color bars (480i, 0% setup, component) signal through VIDEO 5 input in both picture windows. (White to Black Level: Y = 714 ± 10 mVp-p; PB, PR = 700 ± 10 mVp-p).
2. Press the remote's joystick button in to cancel the TWIN mode.
3. Press the channel UP button on the remote to display any cable or VHF/UHF channel.
4. Alternately connect an oscilloscope to CN005 pin A1 (V_ MIDI_Y), and pin A2 (V_ MIDI_ PB) on the B board. **The TV should be showing the TV picture, but the oscilloscope should still be showing the waveform from the colors bars that are being input to video-5.**
5. Enter the service mode and select category “2103- 2”.
6. Adjust item #0 "YLEV” and item #1 "CLEV” so that the waveform levels are 1.400 ± 0.015 Vp-p.
7. After adjustment is finished, press the “MUTING” + “ENTER ” buttons on the remote to write the data to memory.

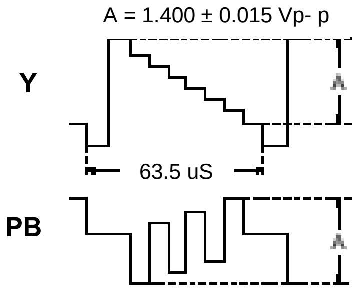


Fig. 2-5

2-6 MAIN DECODER SUB CONTRAST ADJUSTMENT (FOR COMPOSITE AND Y/C INPUTS)

1. Display 100 % color bars (480i, 7.5% setup, Y/ C) signal through VIDEO 3 input. (White to Black Level Y : 714 ± 10 mVp-p, Burst Level C: 285 ± 10 mVp- p)
2. Connect an oscilloscope to CN005 pin A5 (V_ DRCI_ Y) on the B board.
3. Enter the service mode and select category “2103- 1”.
4. Adjust item #2 "SCON” so that the waveform level is 1.400 ± 0.035Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER" buttons on the remote to write the data to memory.

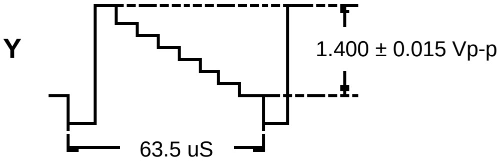


Fig. 2-6

2-7 MAIN DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR COMPOSITE AND Y/C INPUTS)

1. Display 100 % color bars (480i, 7.5% setup, Y/ C) signal through VIDEO 3 input. (White to Black Level Y: 714 ± 10 mVp-p; Burst Level C: 285 ± 10 mVp-p).
2. Connect an oscilloscope to CN005 pin A6 (V_ DRCI_ PB) on the B board.
3. Enter the service mode and select category “2103- 1”.
4. Adjust item #3 "SCOL” and item #4 "SHUE” so that the waveform levels are 1.490 ± 0.040 Vp- p and 0.248 ± 0.035 Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

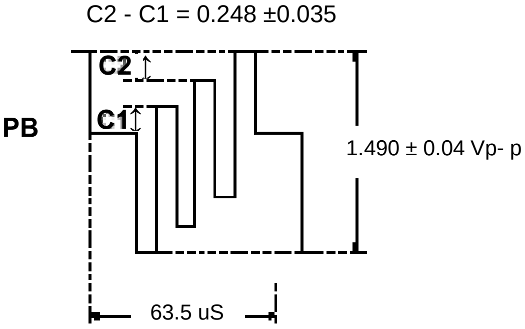


Fig. 2-7

2-8 SUB DECODER SUB CONTRAST ADJUSTMENT (FOR Y/C INPUTS)

1. Display 100 % color bars (480i, 7.5% setup, Y/ C) signal through VIDEO 3 input. (White to Black Level Y : 714 ± 10 mVp-p, Burst Level C: 285 ± 10 mVp- p)
2. Connect an oscilloscope to CN005 pin A1 (V_ MIDI_ Y) on the B board.
3. Enter the service mode and select category “2103- 2”.
4. Adjust item #2 "SCON” so that the waveform level is 1.400 ± 0.035Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER" buttons on the remote to write the data to memory.

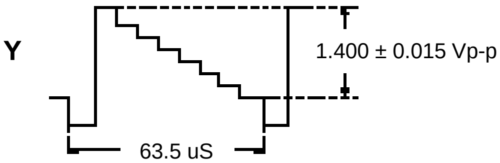


Fig. 2-8

2-9 SUB DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR Y/C INPUTS)

1. Display 100 % color bars (480i, 7.5% setup, Y/ C) signal through VIDEO 3 input. (White to Black Level Y: 714 ± 10 mVp-p; Burst Level C: 285 ± 10 mVp-p).
2. Connect an oscilloscope to CN005 pin A2 (V_ MIDI_ PB) on the B board.
3. Enter the service mode and select category “2103- 2”.
4. Adjust item #3 "SCOL” and item #4 "SHUE” so that the waveform levels are 1.400 ± 0.040 Vp- p and 0.248 ± 0.035 Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

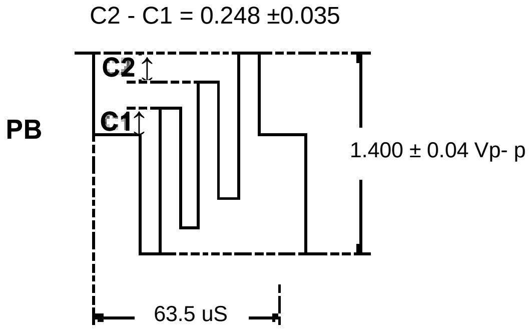


Fig. 2-9

2-10 SUB DECODER SUB CONTRAST ADJUSTMENT (FOR COMPOSITE INPUT)

1. Display 100 % color bars (480i, 7.5% setup, composite) signal through VIDEO 1 input. (White to Black Level 714 ± 10 mVp-p, Burst Level 285 ± 10 mVp- p)
2. Connect an oscilloscope to CN005 pin A1 (V_ MIDI_ Y) on the B board.
3. Enter the service mode and select category “2103- 2”.
4. Adjust item #22 "2SCO” so that the waveform level is 1.400 ± 0.035Vp-p.
5. After adjustment is finished, press the “MUTING” + “ENTER" buttons on the remote to write the data to memory.

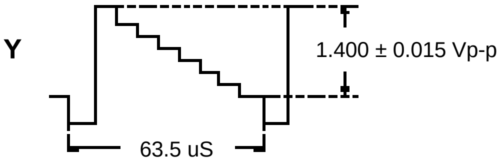


Fig. 2-10

2-11 SUB DECODER SUB COLOR AND SUB HUE ADJUSTMENT (FOR COMPOSITE INPUT)

1. Display 100 % color bars (480i, 7.5% setup, composite) signal through VIDEO 3 input. (White to Black Level 714 ± 10 mVp-p; Burst Level 285 ± 10 mVp-p).
2. Connect an oscilloscope to CN005 pin A2 (V_ MIDI_ PB) on the B board.
3. Enter the service mode and select category “2103- 2”.
4. Adjust item #23 "2SCL” and item #24 "2SHU” so that the waveform levels are 1.400 ± 0.040 Vp- p and 0.248 ± 0.035 Vp-p.

5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

C2 - C1 = 0.248 ±0.035

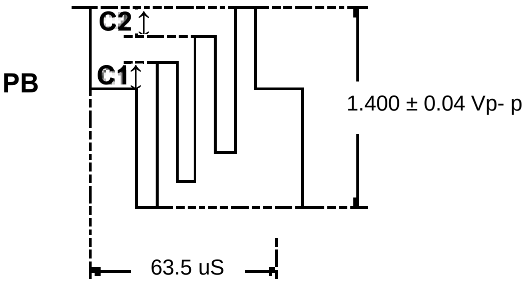


Fig. 2-11

2-12 MAIN DECODER PB AND PR OFFSET ADJUSTMENT

1. Display a white raster (480i, 7.5% setup, composite) signal through VIDEO 1 input. (White to Black Level 714 ± 10 mVp-p).
2. Connect an oscilloscope to CN005 pin A6 (V_ DRCI_ PB) and pin A7 (V_ DRCI_ PB) on the B board.
3. Enter the service mode and select category "2103- 1".
4. Adjust item #20 "CBOF" and item #21 "CROF" so that the waveform levels are 0.000 ±0.003 Vp-p.
5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.
6. Display a white raster (480i, % setup, component) signal through VIDEO 5 input (White to Black Level Y:714 ± 10 mVp-p; PB and PR: 0 Vp-p).
7. Adjust item #20 "CBOF" and item #21 "CROF" so that the waveform levels are 0.000 ±0.003 Vp-p.
8. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

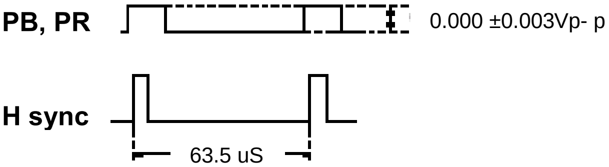


Fig. 2-12

2-13 SUB DECODER PB AND PR OFFSET ADJUSTMENT

1. Display a white raster (480i, 7.5% setup, composite) signal through VIDEO 1 input. (White to Black Level 714 ± 10 mVp-p).
2. Connect an oscilloscope to CN005 pin A2 (V_ MIDI_ PB) and pin A3 (V_ MIDI_ PR) on the B board.
3. Enter the service mode and select category "2103- 2".
4. Adjust item #20 "CBOF" and item #21 "CROF" so that the waveform levels are 0.000 ±0.003 Vp-p.
5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

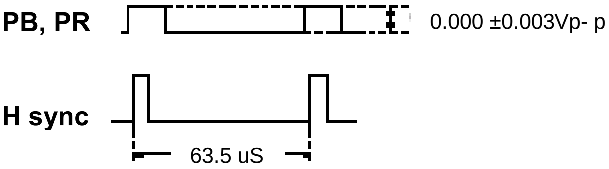


Fig. 2-13

2-14 BLUE OFFSET ADJUSTMENT

1. Display an all black (1080i, component) signal through VIDEO 5 input, and set PICTURE to maximum. An HDTV pattern generator is required for this.
2. Connect an oscilloscope to CN3009 pin 7 (B) on the A board.
3. Enter the service mode and select category "2150D- 2".
4. Adjust item #3 "SLIN" so that the waveform level is 2.20 ±0.05 Vp-p. Make a note of the data you just adjusted for "SLIN".
5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.
6. Tune the set to any VHF-UHF or cable channel and change the display mode to WIDE ZOOM.
7. Set the data of item #3 "SLIN" so that it is the same value that was set in step # 4.

8. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

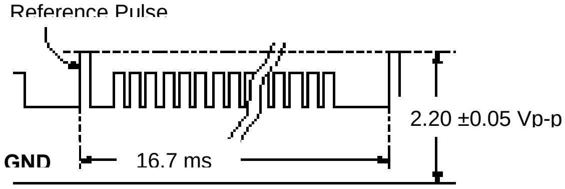
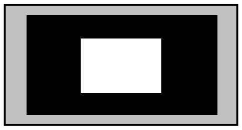


Fig. 2.14

2-15 SUB CONTRAST ADJUSTMENT

1. Display a window pattern (1080i component) signal through VIDEO 5 input and set PICTURE to maximum. An HDTV pattern generator is required for this. A window pattern consists of a bright white square or rectangle on a black background, something like this:



2. Connect an oscilloscope to CN3009 pin 6 (G) on the A board.
3. Enter the service mode and select category "2150P- 4".
4. Adjust item #0 "SCON" so that the waveform level is 2.30 ±0.05Vp-p.
5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.
6. Display a 1/25 window (1080i DTV) signal. **This pattern can be internally generated within the TV. See the section on displaying internal patterns in section 2-23 at the end of this picture adjustment section**.
7. Adjust item #0 "SCON" so that the waveform level is 2.30 ±0.05Vp-p.
8. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

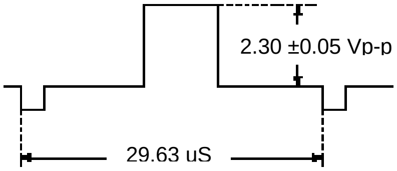


Fig. 2.15

2-16 SUB COLOR AND SUB HUE ADJUSTMENT

1. Display 100 % color bars (1080i, component) signal through VIDEO 5 input, and set PICTURE to maximum. An HDTV pattern generator is required for this.
2. Connect an oscilloscope to CN3009 pin 7 (B) on the A board.
3. Enter the service mode and select category "2150P- 4".
4. Adjust item #1 "SCOL" and item #2 "SHUE" so that the waveform levels are as follows: VB1 = VB4 and VB2 = VB3.
5. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.
6. Display 100 % color bars (1080i, DTV) signal. **This pattern can be internally generated within the TV. See the section on displaying internal patterns at the end of this picture adjustment section.**
7. Adjust item #1 "SCOL" and item #2 "SHUE" so that the waveform levels are as follows: VB1 = VB4 and VB2 = VB3.
8. After adjustment is finished, press the "MUTING" + "ENTER" buttons on the remote to write the data to memory.

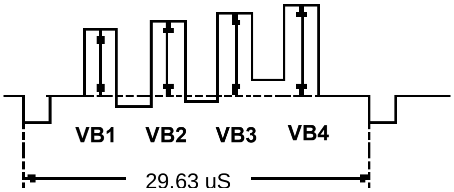


Fig. 2.16

2-17 RF SUB CONTRAST ADJUSTMENT

1. Display the TWIN mode by pressing the ◧ button on the remote, then set PICTURE to maximum and color to minimum.
2. Display 75 % color bars (RF) signal through the VHF-UHF input, and tune both picture windows to the same channel that the color bar generator is set to.
3. Connect an oscilloscope to CN3009 pin 6 (G) on the A board.
4. Select category "2103-1".
5. Adjust item #2 "SCON" so that the left side waveform level is 1.59 ±0.05 Vp-p.

6. Select category “2103-2”.
7. Adjust item #2 "SCON" so that the right side waveform level is 1.59 ±0.05 Vp-p.
8. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

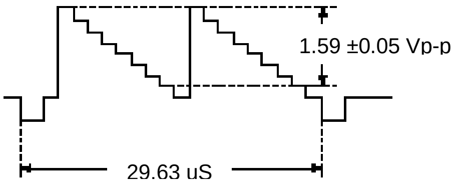


Fig. 2.17

2-18 RF SUB COLOR AND SUB HUE ADJUSTMENT

1. Display the TWIN mode by pressing the ◧ button on the remote, then set PICTURE to maximum and COLOR to 50%
2. Display 75 % color bars (RF) signal through the VHF-UHF input, and tune both picture windows to the same channel that the color bar generator is set to.
3. Connect an oscilloscope to CN3009 pin 7 (B) on the A board.
4. Select category “2103-1”.
5. Adjust item #3 "SCOL" and #4 "SHUE" so that the left side waveform levels are as follows: VB1 = VB4 and VB2 = VB3.
6. Select category “2103-2”.
7. Adjust item #3 "SCOL" and #4 "SHUE" so that the right side waveform levels are as follows: VB5 = VB8 and VB6 = VB7.
8. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

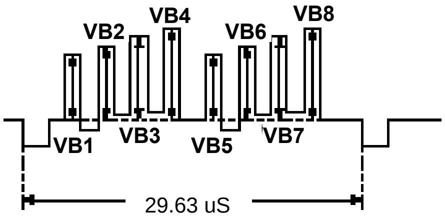


Fig. 2.18

2-19 SUB-BRIGHTNESS ADJUSTMENT

1. Enter the service mode and display the internally generated 1080i all-black pattern (refer to section 2-23 for details on displaying this pattern).
2. Set the picture level to minimum, then make the room as dark as possible.
3. Select category “2150P-1”.
4. Adjust item #3 "SBRT" so that the picture is all black without any faint glowing of the screen.
5. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

2-20 NEUTRAL WHITE BALANCE ADJUSTMENT

1. Enter the service mode.
2. Display an all-white raster through any video input
3. Set the color temperature to NEUTRAL.
4. Set the color to minimum
5. Select adjustment category "2150P-1"
6. Alternately adjust item # 4 "RDRV" and item # 6 "BDRV" to remove any color tint from the white picture.
7. Display a 30 IRE raster (dark gray).
8. Alternately adjust item # 7 "RCUT" and item # 9 "BCUT" to remove any color tint from the gray picture.
9. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

2-21 COOL WHITE BALANCE ADJUSTMENT

1. Enter the service mode.
2. Display an all-white raster through any video input.
3. Set the color temperature to COOL.
4. Set the color to minimum.
5. Select adjustment category "2150P-1".
6. Alternately adjust item # 12 "RDOF" and item # 14 "BDOF" to give the white picture a slight bluish tint.
7. Display a 30 IRE raster (dark gray).
8. Alternately adjust item # 7 "RCOF" and item # 9 "BCOF" to give the gray picture a slight bluish tint.

9. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

2-22 WARM WHITE BALANCE ADJUSTMENT

1. Enter the service mode.
2. Display an all-white raster through any video input.
3. Set the color temperature to WARM.
4. Set the color to minimum.
5. Select adjustment category "2150P-1".
6. Alternately adjust item # 12 "RDOF" and item # 14 "BDOF" to give the white picture a slight bluish tint.
7. Display a 30 IRE raster (dark gray).
8. Alternately adjust item # 7 "RCOF" and item # 9 "BCOF" to give the gray picture a slight bluish tint.
9. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

2-23 USING THE INTERNALLY GENERATED PATTERNS

The TV can internally generate various patterns in various formats (480i, 480p, 1080i, 720p). These patterns can be used in place of those which would otherwise require an HDTV ***RF*** pattern generator. **These internal patterns *cannot* be used in place of the 480i, 480p, and 1080i *component* (Y/Pb/Pr) pattern signals called for in some of the previous picture adjustment sections.** For these, a DVD player with progressive scan capability and a test DVD disc having various patterns is recommended.

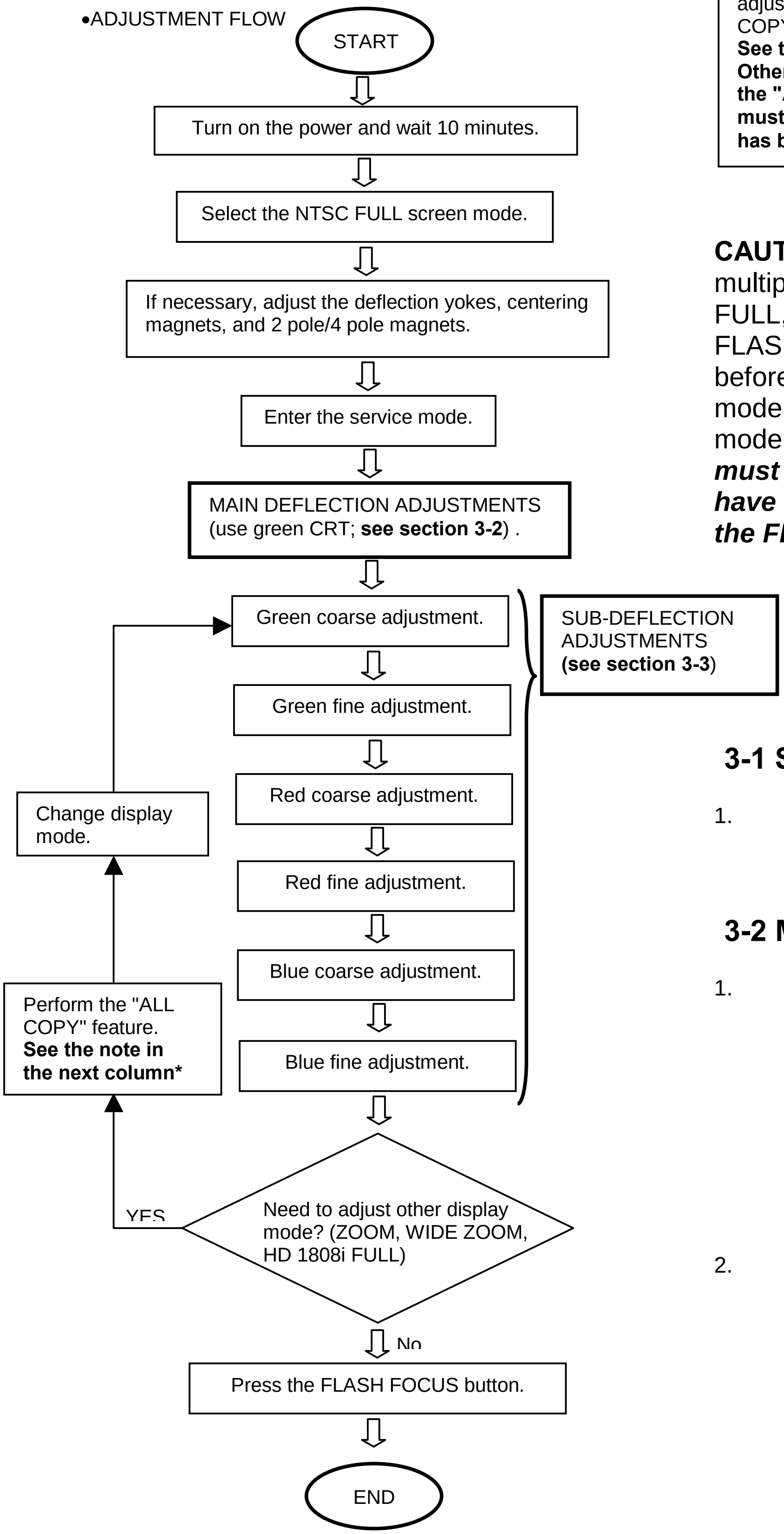
To display the internal patterns follow this procedure:

1. Tune the TV to any DTV channel. **There does *not* have to be a DTV broadcast active at this time.** Simply use the remote control to direct-tune a DTV channel, for example channel "2.1" Be sure to use the decimal point or "dot" button on the remote, and make sure the number after the decimal point is "1" or higher. Do not be concerned if the words "Now Tuning" or "No Signal" appear on the screen.
2. Turn the TV off, then enter the service mode.
3. Select category "DTV".
4. Select adjustment item # 1 "PATN".
5. Select the pattern you want to display by changing the data in "PATN" as follows:

"0" = 1080i black screen.
"1" = 1080i cross-hatch w/ size markers.
"2" = 1080i 1/2 color bars, 1/2 gray sweep.
"3" = 1080i white window.
"4" = 1080i color bars.
"5" = 1080i white raster.
"6" = 1080i 1/2 0 IRE field, 1/2 10 IRE field.
"7" = 1080i gray scale.
"8" = 1080i frequency response.
"9" = 1080i gray raster.
"10" = 1080i diagonal lines.
"11" = 480i cross-hatch w/ size markers.
"12" = 480i 1/2 color bars, 1/2 gray sweep.
"13" = 480i white window.
"14" = 480i color bars.
"15" = 480i white raster.
"16" = 480i 1/2 0 IRE field, 1/2 10 IRE field.
"17" = 480i gray scale.
"18" = 480i frequency response.
"19" = 480i gray raster.
"20" = 480i diagonal lines.
"21" = 480p cross-hatch w/ size markers.
"22" = 480p 1/2 color bars, 1/2 gray sweep.
"23" = 480p white window.
"24" = 480p color bars.
"25" = 480p white raster.
"26" = 480p 1/2 0 IRE field, 1/2 10 IRE field.
"27" = 480p gray scale.
"28" = 480p frequency response.
"29" = 480p gray raster.
"30" = 480p diagonal lines.
"31" = 720p cross-hatch w/ size markers.
"32" = 720p 1/2 color bars, 1/2 gray sweep.
"33" = 720p white window.
"34" = 720p color bars.
"35" = 720p white raster.
"36" = 720p 1/2 0 IRE field, 1/2 10 IRE field.
"37" = 720p gray scale.
"38" = 720p frequency response.
"9" = 720p gray raster.
"40" = 720p diagonal lines.

3- REGISTRATION AND GEOMETRY ADJUSTMENTS

- ADJUSTMENT FLOW


START
Turn on the power and wait 10 minutes.
Select the NTSC FULL screen mode.
If necessary, adjust the deflection yokes, centering magnets, and 2 pole/4 pole magnets.
Enter the service mode.
MAIN DEFLECTION ADJUSTMENTS (use green CRT; **see section 3-2**) .
Green coarse adjustment.
Green fine adjustment.
Red coarse adjustment.
Red fine adjustment.
Blue coarse adjustment.
Blue fine adjustment.
SUB-DEFLECTION ADJUSTMENTS **(see section 3-3)**
Need to adjust other display mode? (ZOOM, WIDE ZOOM, HD 1808i FULL)
YES
Perform the "ALL COPY" feature. **See the note in the next column***
Change display mode.
No
Press the FLASH FOCUS button.
END

*The "ALL COPY" feature copies the adjustment data from the FULL mode to ZOOM, WIDE ZOOM, and HD 1080i FULL modes at the same time. This feature is useful when major geometry/registration adjustments are required. After "ALL COPY" is performed, go to each mode and touch up as required. If major adjustments are not required, do not perform "ALL COPY". Instead, just touch up each mode as required. **See the section "Copy All Registration Data to Other Modes" in section 3-3-5.4 for details on using the "ALL COPY" feature. The ALL COPY feature must only be used once (after the NTSC FULL mode has been adjusted).**

CAUTION: In previous models that had multiple display modes, e.g. ZOOM, FULL, etc., it was mandatory that the FLASH FOCUS button was pressed before you exited a particular display mode after you adjusted it in the service mode. **HOWEVER,** ***in this model you must wait until all display modes have been adjusted before pressing the FLASH FOCUS button!***

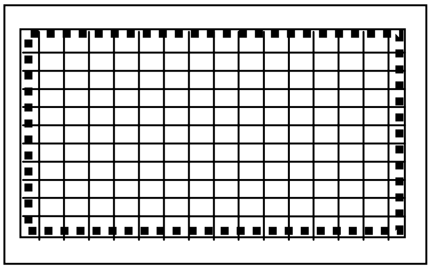
3-1 SETUP FOR ADJUSTMENT

1. At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.

3-2 MAIN DEFLECTION ADJ.

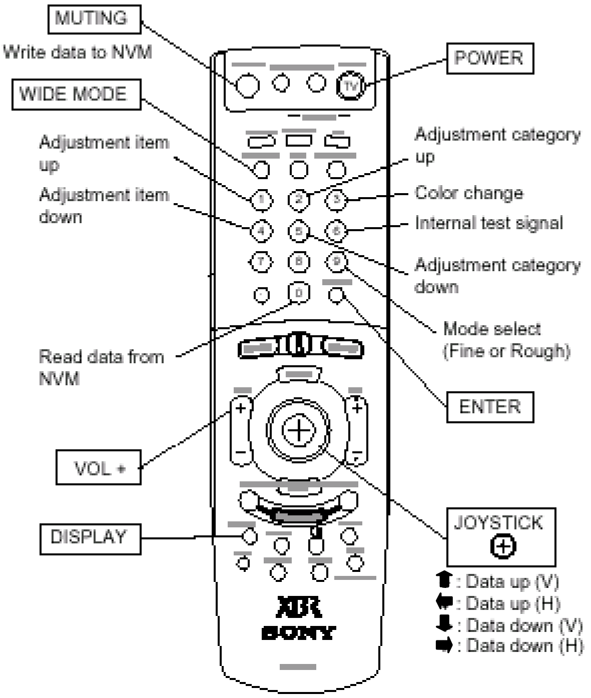
1. Place lens caps on the red and blue lenses so that only the green color is displayed. If lens caps are not available, use the following method to turn off the CRTs individually without using lens caps:

   Change the data in adjustment category "2150P-2" , item # 1"RGBS" from "7" to "2".
2. Display the internal test pattern # 11, "480i cross-hatch w/ size markers" (see section 2-23).



3. Enter the Service mode, and select category “2150D- 1”.
4. Adjust item # 0 "VPOS” so that the picture is displayed in the center of screen vertically.
5. Adjust item # 1 "VSIZ” so that the vertical height is as shown above.
6. Select category "2150D- 2” and adjust item # 1 "HPOS” so that the picture is displayed in the center of screen.
7. Select category "2150D- 2” and adjust item # 2 "HSIZ” so that the horizontal width is as shown above.
8. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
9. Change to the WIDE ZOOM mode and repeat steps # 6 - 8. This time, use only side markers for position and width; do not be concerned about the top and bottom markers.

3-3 PJE MODE SUB-DEFLECTION (COARSE AND FINE GEOMETRY & CONVERGENCE) ADJUSTMENT


MUTING
Write data to NVM
WIDE MODE
Adjustment item up
Adjustment item down
Read data from NVM
VOL +
DISPLAY
POWER
Adjustment category up
Color change
Internal test signal
Adjustment category down
Mode select (Fine or Rough)
ENTER
JOYSTICK
⬆ : Data up (V)
⬅ : Data up (H)
⬇ : Data down (V)
➡ : Data down (H)

RM-Y185

3-3-1 Functions of Keys on Remote Commander

① : Changes adjustment item (selects the next higher adjustment item).
: Moves the fine-adjust mode position marker clockwise from center to outside.
④ : Changes adjustment item (selects the next lower adjustment item).
: Moves the fine-adjust mode position marker counter-clockwise from the outside to the center.
② : Changes adjustment category (selects the next higher category).
⑤ : Changes adjustment category (selects the next lower category).
⬆⬅⬇➡ : Changes data value.
: Marker moves up, down, or to the left or right. (in fine adjustment mode).
③ : Changes adjustment color:
GRN → BLU → RED (except for PJE items No. 00~ 77)
⑥ : Displays or changes internal test patterns:
crosshatch + video → crosshatch + borderline → crosshatch only → dots only → patterns off.
⑨ : Changes the sub-deflection ("PJE") adjustment mode from coarse adjustment mode to fine adjustment mode and back.

⊕ (press in) : When pressed in, toggles the method of moving the fine-adjustment mode marker around the screen as follows:

When marker is white, move joystick button up, down, and side to side direction to move the marker around the screen.

Press joystick button in and the marker changes from white to red or green or blue. Use the # 1 and # 4 buttons to move the colored marker around.

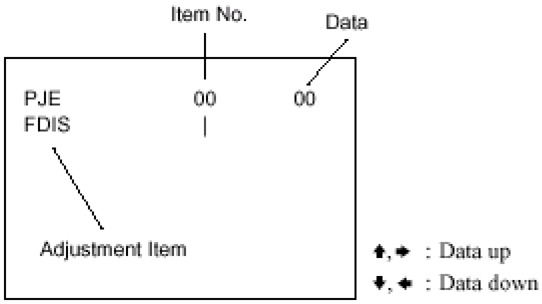
Press the joystick button in again to change the marker from a color (red, green, or blue) to white.

Commander Function

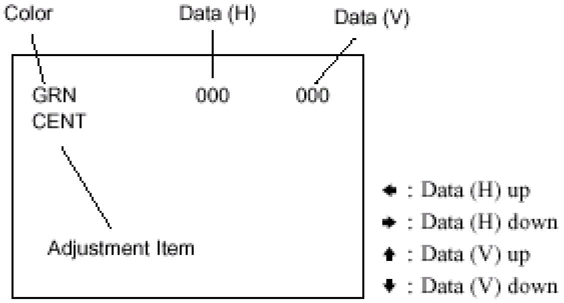
Button	Mode	Description
MUTING + ENTER	WRITE	Writes data to NVM.
⓪ + ENTER	READ	Reads data from NVM.

3-3-2 Performing the PJE Mode Coarse Adjustment.

1. Enter the service mode, and select category “PJE”.
2. Press the “① ” or “④ ” button on the remote to select the adjustment item, and move the joystick button ⬆⬅⬇➡ to change the data.



3. Select item “GRN CENT” . If "BLU" or "RED" is displayed, press the “③ ” button on the remote until "GRN" is displayed.
4. In the GRN, BLU, or RED mode, moving the joystick ⬆ or ⬇ changes the data for vertical deflection, and ⬅ or ➡ changes the data for horizontal deflection.

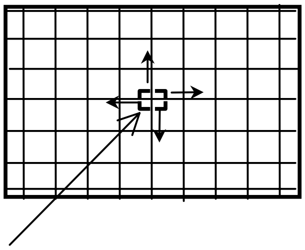


5. Before exiting the PJE coarse adjustment mode, be sure to press the “[MUTING]” + “[ENTER]” buttons on the remote to write the data to memory. **Failure to do this causes the new adjustment data to be returned to the data before adjustment, and the adjustments will have to be redone!**

3-3-3 Performing the PJE Mode Fine Adjustment.

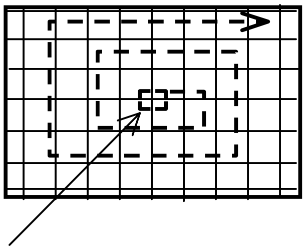
1. Enter the service mode and select category “PJE”.
2. Select item 00 "FDIS” and set the data to “01” so that the data at each adjustment position on the screen can be displayed in the fine adjustment mode.
3. Press the “⑨ ” button on the remote, and the fine adjustment mode will be active where the green marker appears in the center of screen (assuming that the GRN mode is currently selected).
4. Press the “⌖ ” button on the remote, and the marker color will change between green (in GRN mode) and white.
5. Use the “① ” or “④ ” button on the remote, or use the joystick button, to move the marker to the positions that require fine adjustment.

When the adjustment marker color is white, it can be moved in the directions shown by the arrows by moving the joystick button (in this case, fine adjustment is disabled)



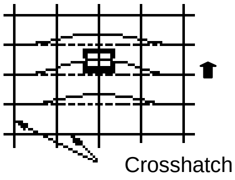
Adjustment marker: when white, it can be freely moved left, right, up, and down.

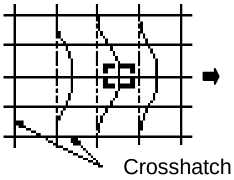
When the adjustment marker color is green, blue, or red, it can be moved in a spiral direction by pressing the "① " and " ④ " buttons (in this case, the fine adjustments can be made).



Adjustment marker: when red, green, or blue, it can be moved in a spiral direction using the ① and ④ buttons on the remote.

Effect on the crosshatch lines in the area of the marker when moving the joystick button up or right (down and left just the opposite).





6. Press the " ⑨ " button on the remote to return to the coarse adjustment mode.

3-3-4 Projector Engine ("PJE") Adjustment (Sub-deflection Adjustment).

Adjustment ○ : Yes – : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	– / ○	– / ○	– / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / –	○ / –	○ / –
MSIZ	○ / –	○ / –	○ / –

Note: Do not exceed the following data limits when adjusting in the coarse mode. If proper adjustment cannot be attained within these limits, use the fine adjustment mode to complete the adjustment.

< Coarse Adjustment Data Limit Values >
CENT H: -135 to +205 V: -150 to +190
SIZE H: -512 to -75
LIN H BLU: -425 to +511
H RED: -512 to +425

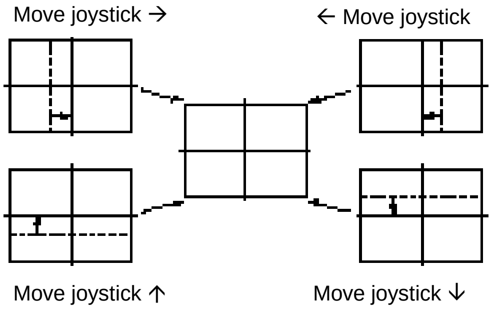
3-3-5 PJE NTSC Full Mode Adjustment

These adjustments should be performed in the order presented.

3-3-5.1 Green Coarse and Fine Adjustment

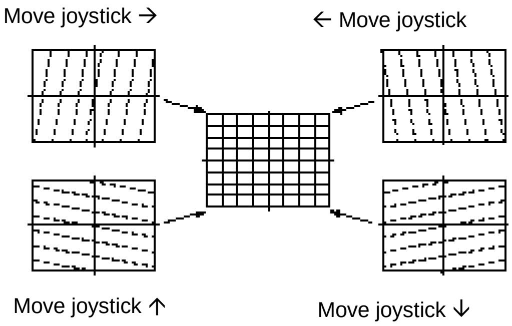
1. Cover the red and blue CRT lenses so that only the green picture is seen.
2. Enter the service mode.
3. Display the internal **480i** cross-hatch pattern with size markers and select the FULL display mode (see section 2-23 for details on displaying the internal patterns).
4. Select adjustment category "PJE".
5. Press the " ⑥ " button on the remote until **only the internal cross-hatch with size markers pattern is displayed.** (Be sure that the PJE cross-hatch pattern *is not* displayed. The PJE cross-hatch pattern is also internally generated. Its rectangles are smaller than those of the "internal cross-hatch with size markers" pattern described in section 2-24. Having both cross-hatch patterns displayed at once makes it difficult to make the adjustment).
6. Select category "PJE", item "GRN CENT".
7. Adjust the vertical and horizontal data to improve the green centering if necessary, which might be required due to the limited resolution of Main Deflection centering adjustments. In most cases this step will not be necessary if the Main Deflection adjustment was OK (section 3-2, "VPOS" and "HPOS".

Green Centering



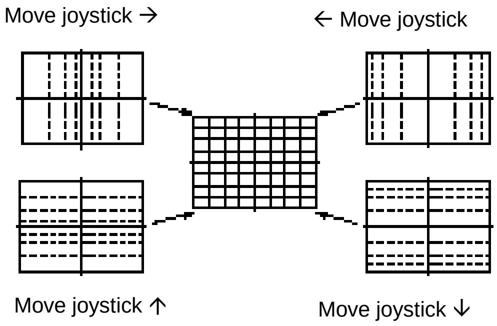
8. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
9. Select category "PJE", item "GRN SKEW".
10. Adjust the data to remove any tilting of the green horizontal and vertical cross-hatch lines.

Green Skew


Move joystick →
← Move joystick
Move joystick ↑
Move joystick ↓

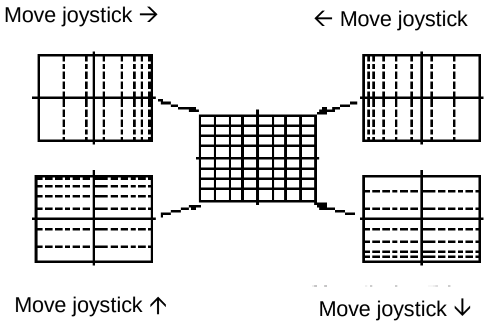
11. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
12. Select category "PJE", item "GRN SIZE".
13. Adjust the data to improve the green vertical and horizontal size if necessary, which might be required due to the limited resolution of Main Deflection size adjustments. In most cases this step will not be necessary if the Main Deflection adjustment was OK (section 3-2, "VSIZ" and "HSIZ".

Green Size


Move joystick →
← Move joystick
Move joystick ↑
Move joystick ↓

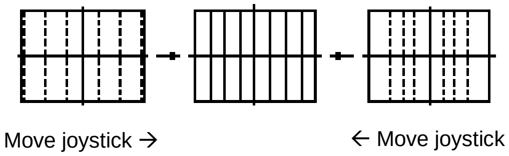
14. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
15. Select category "PJE", item "GRN LIN".
16. Adjust the data so that the boxes at the top and bottom of the screen are the same height, and the boxes at the left and right sides are the same width.

Green Linearity


Move joystick →
← Move joystick
Move joystick ↑
Move joystick ↓

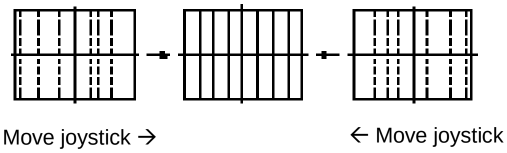
17. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
18. Select category "PJE", item "GRN MSIZ".
19. Adjust the data so that the boxes in the center area of the screen the screen are the same width.

Green Middle Size (horizontally)


Move joystick →
← Move joystick

20. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.
21. Select category "PJE", item "GRN MLIN".
22. Adjust the data so that the boxes throughout the screen the screen are the same width.

Green Middle Linearity (horizontally)


Move joystick →
← Move joystick

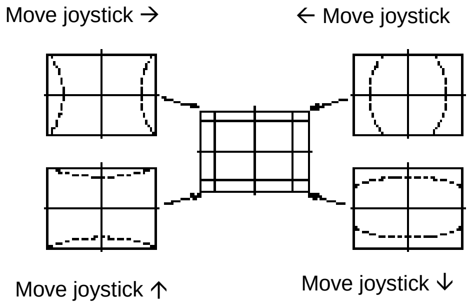
23. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

NOTE: SIZE and LIN, and MSIZ and MLIN interact with each other, so be sure to re-check each one after adjusting the other.

24. Select category "PJE", item "GRN PIN".

25. Adjust the data so that the left side and right side vertical lines and the top and bottom horizontal lines are straight.

Green Pincushion

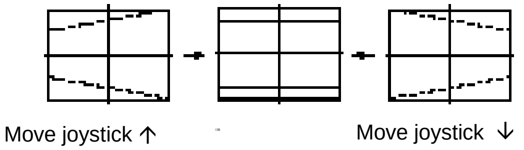


26. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

27. Select category "PJE", item "GRN KEY".

28. Adjust the data so that the boxes at the top and bottom horizontal lines on the screen are parallel.

Green Keystone



29. After adjustment is finished, press the “MUTING” + “ENTER” buttons on the remote to write the data to memory.

    NOTE: the vertical PIN and KEY adjustments interact with each other, so be sure to re-check each one after adjusting the other.

30. Press the "⑨" button on the remote to enter the fine adjustment mode.

31. Press the "⑥" button on the remote so that only the PJE internal cross-hatch pattern appears on the screen (the internal crosshatch pattern with size markers should not be displayed now).

32. Make fine vertical and horizontal adjustments as required at various parts of the screen so that the cross-hatch lines are straight (refer to section 3-3-3 for instructions on using the PJE fine adjustment mode).

    Be sure to write the data to memory often in fine-adjustment mode by pressing the “MUTING” + “ENTER” buttons on the remote.

3-3-5.2 Red Coarse and Fine Adjustment

1. Cover the blue CRT lenses so that only the green and red pictures are seen.

2. Press the "③" button on the remote to select the RED adjustment mode (the adjustment marker must be red to indicate that red adjustment mode is active).

3. Adjust the following coarse-adjustment mode items so that the red lines overlay the green lines as much as possible. Adjust these items similar to the way the green was adjusted. **Be sure to write the data for one item to memory before going on to the next item by pressing the “MUTING” + “ENTER” buttons on the remote.**

    RED CENT (horizontally/vertically)
    RED SKEW (horizontally/vertically)
    RED SIZE (horizontally/vertically)
    RED LIN (horizontally/vertically)
    RED MSIZ (horizontally)
    RED MLIN ((horizontally)
    RED PIN (horizontally/vertically)
    RED KEY (vertically)

4. Press the "⑨" button on the remote to enter the fine adjustment mode.

5. Make fine vertical and horizontal adjustments as required at various parts of the screen so that the red cross-hatch lines are straight and overlay the green cross-hatch lines.

    Be sure to write the data to memory often in fine-adjustment mode by pressing the “MUTING” + “ENTER” buttons on the remote.

6. Pres the "⑨" button on the remote to return to the coarse adjustment mode.

3-3-5.3 Blue Coarse and Fine Adjustment

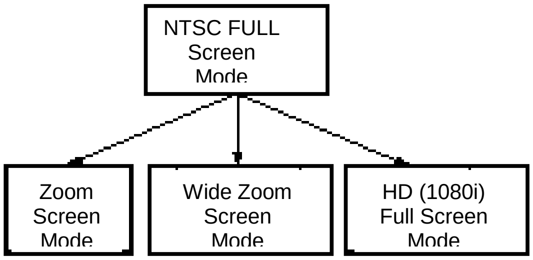
1. Make sure that all 3 CRTs are not covered.

2. Press the " ③ " button on the remote to select the BLUE adjustment mode (the adjustment marker must be blue to indicate that blue adjustment mode is active).
3. Repeat steps 3 through 6 in section 3-3-5.2 (red coarse and fine adjustment) for the blue adjustment mode so that the blue lines overlay the green and red lines as much as possible.
4. **Be sure to write the data for one item to memory before going on to the next item by pressing the "MUTING" + "ENTER" buttons on the remote.**

3-3-5.4 Copying the NTSC FULL mode adjustment data to the other display modes .

CAUTION: Only perform this function if the other display modes (ZOOM, WIDE ZOOM, and HD 1080i FULL) are severely misadjusted, then touch up each mode as required. Skip the copy function if only touch up is required in the other modes.

1. Make sure that the NTSC FULL mode adjustments are finished and the adjustment data has been written to memory.
2. Select adjustment category "PJE", item # 02 "ALCP", and change the data from "0" to "1".
3. Press the "MUTING" + "ENTER" buttons on the remote. The NTSC FULL mode data are written to the other modes.



3-3-6 Auto-registration ("Auto-Focus") Offset Data Calculation.

NOTE: Only perform this function immediately after *all* geometry and convergence adjustments have been completed. This function *must* be performed *before* you exit the service mode.

This function calculates and stores the auto-focus offset data that allows the registration to be returned to the condition it was in when service mode adjustments were made. In the event that the registration drifts over time, the stored offset data is used as the reference data when the customer presses the auto-focus button on the set.

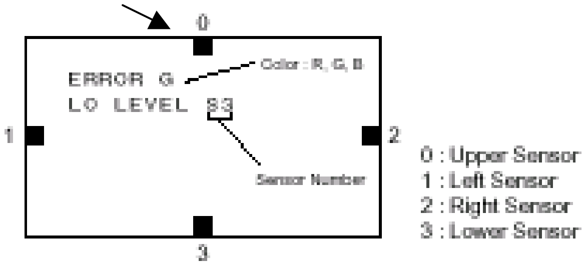
1. Darken the room (this will prevent the ambient light from interacting with the colored boxes that hit the sensors during auto-focus).
2. Make sure the set is in the NTSC FULL mode.
3. Press the flash-focus button the set's front panel.
4. After the flash-focus is completed, select category "PJE", item "ERR", and confirm that the data is "000". If the data is anything other than "000" refer to section 3-4 "Auto registration Error Code List".
5. Exit the service mode.

3-4. Auto Registration Error Code List

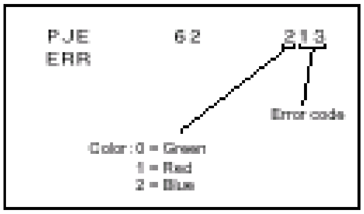
If an error code is displayed after the set has been fully adjusted correctly, please check the following items: position, tilt, and sizing. If either of these adjustments are off, even slightly, the auto registration patterns might not hit the four sensors properly (this occurs when the internal generator patterns are being flashed on the screen for the sensor to read). Therefore, auto registration (also called auto convergence or auto focus) cannot operate properly, causing an error code to be displayed. In order for this function to operate properly, correct position, tilt, and size must be adjusted properly.

Error Code	DESCRIPTION	RECOMMENDATIONS
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/ wiring, circuit, and pattern position (Are patterns hitting sensor ?) Adjust “64 VUP” if necessary.
11	Sensor 1 low output	Check sensor 1, connection/ wiring, circuit, and pattern position (Are patterns hitting sensor ?) Adjust “69 HLE” if necessary.
12	Sensor 2 low output	Check sensor 2, connection/ wiring, circuit, and pattern position (Are patterns hitting sensor ?) Adjust “73 HRIV” if necessary.
13	Sensor 3 low output	Check sensor 3, connection/ wiring, circuit, and pattern position (Are patterns hitting sensor ?) Adjust “68 VLOW” if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check “66 VMID” data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check “71 HMID” data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check “69 HLE” and "73 HRIV" data and check registration condition.
40	V CENT regi data overflow	Check “66 VMID” data and confirm V CENT data (all mode) is not near +511.
41	H CENT regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near +511.
42	V SKEW regi data overflow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near +511.
43	H SKEW regi data overflow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near +511
44	H LIN regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm H CENT data (all mode) is not near +511.
45	H SIZE regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm V CENT data (all mode) is not near +511.
50	V CENT regi data overflow	Check “66 VMID” data and confirm V CENT data (all mode) is not near –512.
51	H CENT regi data overflow	Check “71 HMID” data and confirm H CENT data (all mode) is not near –512.
52	V SKEW regi data overflow	Check “66 VMID” data and confirm V SKEW data (all mode) is not near –512.
53	H SKEW regi data overflow	Check “71 HMID” data and confirm H SKEW data (all mode) is not near –512
54	H LIN regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm H CENT data (all mode) is not near –512.
55	H SIZE regi data overflow	Check “69 HLE” and “73 HRIV” data and confirm V CENT data (all mode) is not near –512.
60	H or V CENT offset overflow	Check “71 HMID” data and check “66 VMID” data
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check “69 HLE” and “73 HRIV” data and check SIZE and LIN adjustment.
70	H or V CENT offset overflow	Check “71 HMID” data and check “66 VMID” data
71	H or V SKEW offset overflow	Check SKEW adjustment.
72	H SIZE or LIN offset overflow	Check “69 HLE” and “73 HRIV” data and check SIZE and LIN adjustment.
80	Size limit error	Check that H SIZE data is a negative value and not near 0.

Error code screen display when auto-focus performed in service mode.



Stored-error code screen displayed in category “PJE”, item “ERR” (refer to table above).



Self Diagnosis Supported model

SERVICE MANUAL

RA-5A CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KDP-57XBR2	RM-Y185	US	SCC-P69B-A
KDP-57XBR2	RM-Y185	Canadian	SCC-P69B-A
KDP-65XBR2	RM-Y185	US	SCC-P69A-A
KDP-65XBR2	RM-Y185	Canadian	SCC-P69A-A

CORRECTION - 1

SUBJECT: EXPLODED VIEW P/N CORRECTION - SCREEN FRAME BLOCK

Correct the service manual as shown.
File this Correction with the service manual.

☞ : Corrected Item

Section 8: Exploded View (Page 109)

8-1. Screen and Screen Frame Block

INCORRECT

REF. NO.	PART NO.	DESCRIPTION
17	4-083-713-11	SCREEN (57W), CONTRAST (KDP-57)
17	4-083-714-11	SCREEN (65W), CONTRACT (KDP-65)

CORRECT

	REF. NO.	PART NO.	DESCRIPTION
☞	17	4-084-346-11	SCREEN (57W), CONTRAST (SDP-57)
☞	17	4-084-347-11	SCREEN (65W), CONTRAST (SDP-65)

DIGITAL HIGH DEFINITION PROJECTION TV

SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

English
2002AJ74WEB-1
Printed in USA

© 2002.1

9-965-432-91

Self Diagnosis
Supported model

SERVICE MANUAL RA-5A CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KDP-57XBR2	*RM-Y185*	*US*	*SCC-P69B-A*
KDP-57XBR2	*RM-Y185*	*Canadian*	*SCC-P69B-A*
KDP-65XBR2	*RM-Y185*	*US*	*SCC-P69A-A*
KDP-65XBR2	*RM-Y185*	*Canadian*	*SCC-P69A-A*

SUPPLEMENT - 2

SUBJECT: B BOARD, Q-BOX ASSEMBLY P/N CORRECTION;
IC001 P/N CORRECTION

Correct the service manual as shown.
File this Supplement with the service manual.

DIGITAL HIGH DEFINITION PROJECTION TV

SONY®

Sony Corporation
Sony Technology Center
Technical Services
Service Promotion Department

9-965-432-82

English
2002JG74WEB-1
Printed in USA
© 2002.07

☞ : Corrected Item

Section 8: Exploded Views

8-4. Main Bracket Block (Page 112)

INCORRECT				CORRECT		
REF. NO.	**PART NO.**	**DESCRIPTION**		**REF. NO.**	**PART NO.**	**DESCRIPTION**
152	A-1136-205-A	B BOARD, COMPLETE	☞	152	A-1136-205-A	B BOARD, COMPLETE (KDP-57XBR2 S/N’s up to 9009999) (KDP-65XBR2 S/N’s up to 9005999)
			☞	152	A-1136-205-B	B BOARD, COMPLETE (KDP-57XBR2 S/N’s 9010000 and higher) (KDP-65XBR2 S/N’s 9006000 and higher)
173	T-9986-079-1	Q-BOX ASSEMBLY (KDP-57)	☞	173	T-9986-079-1	Q-BOX ASSEMBLY (KDP-57) (KDP-57XBR2 S/N’s up to 9009999)
			☞	173	T-9986-093-7	Q BOX ASSEMBLY (KDP-57) (KDP-57XBR2 S/N’s 9010000 and higher)
173	T-9986-079-2	Q-BOX ASSEMBLY (KDP-65)	☞	173	T-9986-079-2	Q-BOX ASSEMBLY (KDP-65) (KDP-65XBR2 S/N’s up to 9005999)
			☞	173	T-9986-093-8	Q-BOX ASSEMBLY (KDP-65) (KDP-65XBR2 S/N’s 9006000 and higher)

Section 9: Electrical Parts List (Page 114)

INCORRECT				CORRECT		
REF. NO.	**PART NO.**	**DESCRIPTION**		**REF. NO.**	**PART NO.**	**DESCRIPTION**
	A-1136-205-A	B BOARD, COMPLETE	☞		A-1136-205-A	B BOARD, COMPLETE (KDP-57XBR2 S/N’s up to 9009999) (KDP-65XBR2 S/N’s up to 9005999)
			☞		A-1136-205-B	B BOARD, COMPLETE (KDP-57XBR2 S/N’s 9010000 and higher) (KDP-65XBR2 S/N’s 9006000 and higher)

Section 9: Electrical Parts List (Page 117)

INCORRECT				CORRECT		
REF. NO.	**PART NO.**	**DESCRIPTION**		**REF. NO.**	**PART NO.**	**DESCRIPTION**
IC001	6-800-670-01	IC M306V2ME-154FP	☞	IC001	6-801-826-01	IC M306V2ME-155FP (KDP-57XBR2 S/N’s up to 9009999) (KDP-65XBR2 S/N’s up to 9005999)
			☞	IC001	6-801-856-01	IC M306V2ME-156FP (KDP-57XBR2 S/N’s 9010000 and higher) (KDP-65XBR2 S/N’s 9006000 and higher)